

Communities and Diamonds

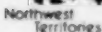
Socio-economic Impacts in the Communities of
Behchokò, Gamètì, Whatì, Wekweètì, Detah, N'dilo, Łutselk'e,
and Yellowknife

2008 Annual Report of the Government of the Northwest Territories Under the BHP Billiton, Diavik and De Beers Socio-economic Agreements



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May 2009



official language, call us.

contactez-nous.

ācimōwin, tipwāsinān.

QUQUAQLUTA.

XA BEYÁYATI THE?A ?AT'E, NUWE TS'ËN YÓLTI.

EDATŁ'ÉH ENAHDDHE NIDE.

ʔEDIHTL'É YERINIWE NÍDÉ DÚLE.

NIINDHAN JI'. NIKHWETS'ÀT GINÒHKHIL.

DE, GOTS'O GONEDE.

$\Delta \text{C}^{\circ}\text{H}_2$ $\Delta \text{G}^{\circ}_{\text{C-H}}$

uvaptinnut hivajarlutit.

To request a translation, please contact Juanita Robinson at (867)920-3343.

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I. Introduction

The Government of the Northwest Territories (GNWT) issues the Community and Diamonds Report (Report) once a year. The Report is required by each GNWT socio-economic agreement (SEA). The GNWT has SEAs with BHP¹, Diavik, and De Beers.

SEAs are follow-up programs to environmental assessments. Follow-up programs are used to check if predictions made during an assessment were right. In the Report, we look at what was predicted in the BHP Environmental Impact Statement and in the Diavik and De Beers Environmental Assessment Reports (EARs). We then compare the trends we see in the communities around the mine to those trends predicted in the EAR for the mine.

i. Note on Format Change

The layout of the Report has changed. The size of the printed version of the Report has been greatly reduced. The printed part of the Report contains only the key findings. Extended analysis and reference material are included on the disk attached to the Report.

What used to be Appendix A, the Glossary, is now at the end of the printed version of the Report. The Glossary defines key terms used in the Report. What used to be Appendix C, the History of Events, has been moved into the Introduction. The History of Events lists events that may influence the trends analyzed in the Report.

Appendix B, Company Predictions, is now Appendix A, and has been moved from the printed part of the Report to the disk. The Company Predictions are what the three diamond mine companies stated they thought would happen before their projects began. A more in-depth analysis is included on the disk as Appendix B. What used to be Appendix D, the Data Tables, has been renamed. The Data Tables are now Appendix C. The Data Tables show the data that was used to make the analyses in the Report.

This change was made so the Report would be easier to read. The new layout will also use less paper.

ii. Method

Through its SEAs, the GNWT has set up an industrial monitoring program. This helps us understand and prepare for the effects of large projects.

The program uses both objective and subjective indicators. Information comes from administrative databases and from surveys. Where possible, the subjective indicators that we use are also used in territorial or national surveys. This lets us compare trends in the Local Study Area with national and territorial trends.

¹ In May 2001, BHP merged with Billiton Plc to become BHP Billiton. When referring to the SEA this Report uses BHP. When referring to events after May 2001 this Report uses BHP Billiton (BHPB).

The program allows for 'control' by looking at different population groups. For example, Canadian rates are included for most indicators. We can see that changes occur at different rates for different groups. This helps to separate natural changes from those changes that seem to follow industrial development. For example, if a NWT trend matches a Canadian trend, this would be considered a natural change. The NWT trend would reflect general societal changes.

This Report looks at indicator *rates*. For example, the body of the Report looks at the number of property crimes taking place for each 1,000 people. This lets us ensure that the trend is not going up only because the number of people living in communities is going up. The actual number of incidents is shown in the tables in Appendix C.

Population data is available for 1991 and from 1996 on. To allow a trend line to be shown between 1991 and 1996 on the graphs in this Report, a steady change in population from 1991 to 1996 was assumed.

We can also look at changes in a data series to understand events that affect the trends we see. Diamond mines started to be built in the NWT in 1996. This Report looks at the trends we are seeing since 1996, compared to the trends we were seeing before 1996. Where the rates for an indicator go up and down over time, it is assumed that this shows that indicator's *natural variability*. The highest and lowest rates for an indicator before 1996 are assumed to show the range of natural variability. If an indicator shows a recent trend but the rate is no higher and no lower than the rates seen before 1996, no trend was generally found.

iii. Data

GNWT departments report data once a year where it is possible. The NWT Bureau of Statistics carries out a Community Survey every five years. The most recent was in 2004. Bureau surveys try to record what issues are important to communities. Sometimes the Bureau carries out extra surveys, such as the 2005 Community Impact Survey.

Data on Yellowknife-area Métis is available for some indicators. The North Slave Métis Alliance found it hard to see what effect diamond mine development may be having on their community without such data. This data is shown in the Appendix C tables.

Statistics Canada does a Canadian Population Census every five years. It issued the last census in 2006. It issues other data as well, at different times.

iv. Socio-Economic Agreement Indicators

BHP	DIAVIK	DE BEERS
Community, Family & Individual Well-being		
number of potential years of life lost		
number of injuries	age-standardized injuries	age-standardized injuries
number of suicides		
number of communicable diseases	communicable diseases (sexually-transmitted diseases ² , tuberculosis)	communicable diseases (sexually-transmitted infections, tuberculosis)
number of teen births		
	single-parent families (also referred to as lone-parent families)	lone-parent families
number of children in care ³	children in care ³	children in care ³
number of complaints of family violence	number of women and children referred to shelters	number of women and children referred to shelters
number of alcohol- and drug-related crimes	police-reported crimes, according to the following categories: violent, property, drug-related, other	police-reported crimes, according to the following categories: violent, property, drug-related, other
number of property crimes		
housing indicators		
Cultural Well-being & Traditional Economy		
	ratio of home-language use to mother tongue, by major age groups	ratio of home-language use to mother tongue, by major age groups
	percentage of workforce-aged group engaged in traditional activities	percent of workforce-aged group engaged in traditional activities
Non-traditional Economy		
average income of residents	average income	average income
	proportion of high income earners	proportion of high income earners
number of social assistance cases ⁴	social assistance cases ⁴	income support cases ⁴

² Now called *sexually-transmitted infections*.

³ Now called *children receiving services*.

⁴ Now called *income assistance cases*.

BHP	DIAMIK	DE BEERS
employment levels and participation	employment	Employment
	participation rate	employment participation rate
high school completion	number of people 15 years and older with less than Grade 9	number of people 15 years and older with less than Grade 9
	number of people 15 years and older with a high school diploma	number of people 15 years and older with a high school diploma
	registered businesses, bankruptcies and start-ups	registered businesses, bankruptcies and start-ups
Net Effect on Government		
	net effects on government of the project	
Sustainable Development		
	secondary industry data and initiatives	

v. Trends Tables

In each Observation section for each indicator, a Trends Table gives a picture of the effects of mine activity expected in the BHP Environmental Impact Statement, and the Diavik and De Beers Environmental Assessment Reports (EARs). This is shown on the left side of each table. The right side of each table sums up the trend observed by the GNWT for Small Local Communities and Yellowknife. Down arrows (↓) and up arrows (↑) show the predicted or observed direction of change. These trends show the direction of change that has happened as a result of diamond mine development. To show this, it is necessary to compare how things were before diamond mining started in 1996 with how things have gone after. A dash (—) means there is no trend, no predictions were made, or the predictions that were made by the three companies were not consistent with each other.

vi. Spatial Boundaries

This report looks at indicators in Yellowknife and seven Small Local Communities⁵:

- Behchokò;
- Detah;
- Gamèti;
- Łutselk'e;
- N'dilo;
- Wekweètì; and
- Whatì.

These were part of the 'local study area' in the BHP, Diavik and De Beers environmental assessments. For comparison, we show data for Remaining NWT Communities and for Canada when possible. Rates in this Report are based on the NWT populations shown in Table 1 in Appendix D.

West Kitikmeot, in Nunavut, was also part of the local study area in the BHP and Diavik assessments. That region is not included in this Report, as it is outside GNWT boundaries.

The next page shows a Map of the Northwest Territories.

⁵ Some community names have changed since 1990. Their names were formerly: Rae Edzo (Behchokò); Rae Lakes (Gamèti); Snowdrift (Łutselk'e); Snare Lake (Wekweètì); and Lac La Martre (Whatì).



Source: Industry, Tourism and Investment Administrative File.

vii. History of Events

BHP, Diavik and De Beers predicted their Projects may affect NWT communities. Other events can also have an effect. In addition, major changes in programs, such as changes in legislation, can affect the trends we see.

The Chart below documents the timing of

- Major workforce shocks felt in the NWT, and
- Major programs changes.⁶

This is included as an aid to interpreting the trends in this Report.

These changes can have a strong effect on the trends shown by the data. Knowing when such changes happened may help make it clearer whether or not trends shown by the data are caused by diamond mine activity.

DATE	INDUSTRIAL, SOCIAL & POLITICAL EVENTS
1997	The Royal Oak Mines Giant Mine lays-off about 40 workers.
	Miramar Con Mine lays-off about 120 workers.
1997 to 2003	Licenses issued for oil and gas exploration. This started with the Sahtu in 1997, then Fort Liard and the Beaufort Delta. The size of rights issued increases as each new area is opened for exploration.
January 1997	Ekati Mine construction begins.
December 1997	Royal Oak Mines Colomac Mine closes.
January 1998	Lupin Mine (Nunavut) enters care and maintenance status, laying-off about 500 workers.
May 1998	Miramar Con Mine halts operations during a labour strike.
October 1998	Ekati Mine begins commercial operations.
October 1998	NWT <i>Child and Family Services Act</i> comes into effect.
February 1999	BHP Sorting and Valuation Facility opens in Yellowknife.
April 1999	Territory of Nunavut established; NWT public sector becomes smaller.

⁶ A fuller picture of events can be seen by also looking at the SEA reports on employment and spending that each company issues.

DATE	INDUSTRIAL, SOCIAL & POLITICAL EVENTS
June 1999	Sirius Diamonds opens a cutting and polishing facility in Yellowknife.
July 1999	Miramar Con Mine labour strike ends and operations resume.
2000	Giant Mine operations begin again on a smaller scale, with less than 100 employees.
March 2000	Deton'Cho Diamonds opens a cutting and polishing facility in Yellowknife.
April 2000	Lupin Mine operations begin again with a smaller workforce.
December 2000	Diavik construction begins.
	Arslanian Cutting Works opens a cutting and polishing facility in Yellowknife.
2002	Tiffany and Co. begin construction of a cutting and polishing facility in Yellowknife
2003	Tiffany & Co. opens a cutting and polishing facility in Yellowknife under the name Laurelton Diamonds.
January 2003	Diavik Mine starts production.
April 2003	Federal <i>Youth Criminal Justice Act</i> comes into effect.
August 2003	Operations suspended at Lupin Mine (Nunavut), affecting about 305 employees.
November 2003	Miramar closes Con Mine.
April 2004	NWT <i>Youth Justice Act</i> comes into effect.
February 2005	De Beers begins construction of Snap Lake Diamond Mine
April 2005	NWT <i>Protection Against Family Violence Act</i> comes into effect.
August 2005	Tlicho Land Claim and Self-Government Agreement effective date.
May 2006	Canada Dene Diamonds closed.
October 2007	The De Beers Snap Lake Mine officially opened.
Winter 2007	Indian Residential Schools Settlement Agreement implemented. Survivors and their families begin to receive Common Experience Payments.
June 2008	The De Beers Canada Inc. Snap Lake Mine officially moved from its Construction Phase to its Operations Phase.

DATE	INDUSTRIAL, SOCIAL & POLITICAL EVENTS
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October 2008	Crossworks Manufacturing Ltd. opened a diamond processing factory in Yellowknife.
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November 2008	GNWT Ministers of Education, Culture and Employment and Industry, Tourism and Investment, and representatives from BHP Billiton, Diavik Diamond Mines Inc. and De Beers Canada Inc. signed a Memorandum of Understanding to address Northern workforce attraction and retention issues.
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Late 2008	Global credit crunch and economic downturn. A number of projects and contracts were postponed or cancelled. Job losses increased.
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II. Summary of Findings

INDICATOR	OBSERVATIONS	FINDINGS
Community, Family & Individual Well-being		
Potential Years of Life Lost (PYLL)	PYLL has gone up in Yellowknife. It has dropped in Small Local Communities.	The drop in Small Local Communities could be due to better standards of living or better access to health services.
Injuries	Injuries are going down in Yellowknife. No trend is noted in Small Local Communities.	The downward trend in Yellowknife may be due to injury prevention efforts.
Suicides	Suicide rates have gone up in the NWT. No trend is noted in Yellowknife or Small Local Communities.	The small number of suicides makes it hard to define trends.
Communicable Diseases	Sexually transmitted infections (STIs) ⁷ have gone up in the NWT, including in Yellowknife and Small Local Communities. Youth aged 15-24 have been most affected. This Report does not note any trend for tuberculosis.	The increase in STIs may be due to: <ul style="list-style-type: none"> • Reduced supervision by parents because of work schedules; • More alcohol and drug abuse because of higher incomes; and/or • A general disregard for safe sex.
Teen Births	The teen birth rate has dropped across the NWT, especially in Small Local Communities.	The decrease in teen births may be due to more planned parenting, delayed childbirth, more use of birth control or the fact that more teens are pursuing education.
Single-parent Families	Single-parent families are increasing across the NWT, mostly in Small Local Communities.	The increase in Yellowknife reflects a general change in Canadian society. Increases in single-parent families coincide with diamond mine development. Factors could include rotation work schedules or one partner living out of the house in the hope of finding work.
Children in Care	Since 2000/01, ⁸ the rate of children receiving services has gone up in Small Local Communities.	The trend may be due to changes in staff, or more public and staff reporting.

⁷ Reported STIs include Chlamydia and Gonorrhoea.

⁸ Data before and after 2000/01 are not comparable, due to changes in legislation and reporting.

INDICATOR	OBSERVATIONS	FINDINGS
Family Violence	<p>It is difficult to draw conclusions about the trend for family violence on the basis of rates of reported spousal assault.</p> <p>The number of women and children using shelters has fallen. However, in the NWT, family violence is still quite high.</p>	<p>Any increase or decrease of reported spousal assault can mean very different things. An increase could mean better social awareness and support for victims. A decrease may mean that victims find it harder to come forward.</p> <p>Shelter data does not capture some women who do not access the shelters. Reported spousal assault cases may not represent all incidents.</p> <p>In the North, high unemployment, social isolation, alcohol consumption, younger couples and common-law unions may contribute to the high level of family violence.</p>
Crime	<p>The total crime rate in Yellowknife is higher than it was in 1996, but the trend is not clear. No trend is noted in Small Local Communities.</p>	<p>The increase in the Yellowknife crime rate is primarily due to increases in Other <i>Criminal Code</i> offences, like mischief and disturbing the peace. Increases since 1996 could also be linked to:</p> <ul style="list-style-type: none"> • A change in RCMP reporting between 1999 and 2000; • Resource development; • An increase in organized crime; • Its position as a hub for NWT traffic; or • More substance abuse, which may be related to diamond mine development.
	<p>The violent crime rate has gone up in Yellowknife. No trend is noted in Small Local Communities.</p>	<p>Alcohol plays a large role in most of the NWT's violent crime. An increase in drug use may also lead to an increase in violent crime rates. Higher incomes from diamond mine employment may be related to more drug use.</p>
	<p>Property crime rates have been dropping.</p>	<p>Property crime rates have been going down in the NWT. This trend began before the diamond mines were developed.</p>
	<p>Since 1991, federal statute crime rates have gone up in the NWT.</p>	<p>The increase in federal statute crime may be due to more pro-active police enforcement. There could also be more drug activity because of higher incomes due to mine-related jobs.</p>
	<p>The trend for traffic crime in the NWT is unclear.</p>	<p>Data does not show any major influence on traffic crimes from the mining industry.</p>
	<p>The rate of Other <i>Criminal Code</i> crimes has increased sharply in Yellowknife. No trend is noted in Small Local Communities.</p>	<p>Most Other <i>Criminal Code</i> crimes are related to alcohol. Part of the Yellowknife trend may be due to the change in RCMP reporting between 1999 and 2000. Other factors may include more income or in-migration. These may be linked to diamond and other resource activity.</p>

INDICATOR	OBSERVATIONS	FINDINGS
Housing	Home ownership has grown in Yellowknife. However, growth has slowed since 1996. No trend is noted in Small Local Communities.	The slowing growth of home ownership in Yellowknife could be linked to an increase in housing prices. This would be an expected result of in-migration from development. Higher incomes do not seem to have increased the level of homeownership.
	Crowding has gone down in the NWT. They are still highest in Small Local Communities. However, the sharpest drop in crowding has been seen in these communities.	Diamond projects have not had the positive impact on crowding that was expected. Crowding was expected to drop further. Lack of suitable housing, in- and intra-migration as well as house price rises may be factors.
	Core need went up in Yellowknife. It dropped sharply in Small Local Communities.	Inflation, perhaps linked to in-migration from development, may explain the increase in core need in Yellowknife. Higher household income from the mining industry may explain the decrease in core need in Small Local Communities.
	The vacancy rate in Yellowknife has dropped for the second year in a row. The Canadian rate also dropped. But, the Yellowknife rate is still lower than the Canadian rate.	Yellowknife's low vacancy rate could be linked to: <ul style="list-style-type: none"> • High cost of materials; • Labour shortages related to development; and • Higher housing prices as a result of in-migration.
Cultural Well-being & Traditional Economy		
Aboriginal Language Use (15-24 Years of Age)	Home-language use to mother tongue has dropped territorially. Since 1999, it has started to go up a bit in Yellowknife.	The increase in Yellowknife seen since 1999 may be a result of more people moving there from other communities where Aboriginal language use is higher.
Workforce-aged Group Engaged in Traditional Activities	Trapping has increased in Small Local Communities. No trend is noted for Yellowknife. Hunting and fishing has declined in Yellowknife. These activities have increased in Small Local Communities.	More trapping, hunting and fishing in Small Local Communities could be due to more income and the rotational work schedule.
	The percent of households consuming meat or fish harvested in the NWT has increased slightly, overall, in Small Local Communities. No change is noted in Yellowknife.	There seems to be no link between the amount of country food consumed and the diamond mines.

INDICATOR	OBSERVATIONS	FINDINGS
Non-traditional Economy		
Average Income	Average income has been rising for some time, but has risen sharply since 1997. The largest increases have been seen in Yellowknife and Small Local Communities. Yellowknife saw another jump in 2002. Average income levels remain lowest in Small Local Communities.	The upward trend in Small Local Communities is most likely due to diamond mine development. The increase in Yellowknife has probably also been influenced by diamond mine development.
Proportion of High-income Earners	The proportion of high- and middle- income earners has gone up across the NWT. This is an indication that wage disparity has gone down.	Diamond mine development does not seem to have led to more income inequalities.
Income Assistance	The income assistance case rate has dropped across the NWT. The drop was slight in Yellowknife. The drop was sharp in Small Local Communities.	After 1997, the drop in cases may be due to better employment, education and income opportunities related to the mining industry. In-migration of people without jobs to Yellowknife may have stopped the rate there from dropping more.
Employment Rate	The employment rate in Yellowknife has gone down. It has gone up in Small Local Communities More people are working more than 26 weeks periods across the territory. In Small Local Communities, the percent working more than 26 weeks increased by almost 40%.	Diamond mines have played a role in the rise in employment in Small Local Communities. Greater local access to culturally-fitting education and training has also helped increase many people's educational success and chances of finding jobs.
Unemployment Rate	The unemployment rate has gone down in Small Local Communities. No trend has been noted in Yellowknife.	More people are becoming employed. The drop in the unemployment rate in Small Local Communities is most likely a result of job opportunities at the diamond mines.
Participation Rate	The participation rate has gone down in Yellowknife. It has gone up in Small Local Communities.	The participation rate may be affected by: <ul style="list-style-type: none"> • Changes in the working age population; • Frustration with the wage economy; • Obstacles to employment; and • Out-migration.

INDICATOR	OBSERVATIONS	FINDINGS
High School Completion	More people are completing high school. However, this was true before 1996.	The diamond mines seem to be having a good impact on high school completion.
Less than Grade 9	The percent of population with less than Grade 9 has gone down across the NWT.	A key reason for the drop may be grade extensions. Ongoing "Stay in School" plans are making a difference.
Business Activity	Major spending is continuing to increase in the areas of housing, transportation and warehousing.	The diamond mines have likely contributed to the rise in business activity. An increase in capital spending indicates an expanding economy.
Net Effect on Government		
Government Costs	The cost of maintaining program and service levels is increasing. Program expectations are also under pressure.	To some extent, this trend is linked to the diamond mining industry.
Sustainable Development		
Secondary Industry	The cutting and polishing industry continues to grow.	Growth is due to: <ul style="list-style-type: none"> • Local access to rough diamonds; • GNWT certification programs; and • Persistence and marketing by the GNWT and the private sector.

III. Summary of Observed Trends

Down arrows (↓) and up arrows (↑) show the predicted or observed direction of change since the start of the first diamond project in 1997. If there is no trend, if no predictions were made, or if there appears to be inconsistency in the predictions made, a dash (---) appears. Red arrows show damaging indicator trends. Green arrows show beneficial indicator trends.

INDICATOR	COMPANY PREDICTED TREND			GNWT OBSERVED TREND	
	BHPB	Diavik	De Beers	Small Local Communities	Yellowknife
Community, Family & Individual Well-being					
Potential Years of Life Lost	↑	↑	↓	↓	↑
Injuries	↑	↑	↓	--- ⁹	↓
Suicides	---	---	↑	--- ¹⁰	--- ¹⁰
Communicable Diseases	---	↑	↑	↑	↑
Teen Births	---	---	↑	↓	↓
Single-parent Families	↑	---	↑	↑	--- ¹¹
Children Receiving Services	↑	↑	---	↑ ¹²	--- ¹²
Spousal Assault	↑	↑	↑	--- ¹³	---
Total Police-reported Crimes	↑	↑	↑	--- ¹⁴	↑
Violent Crimes	↑	↑	↑	--- ¹⁴	↑
Property Crimes	↑	↑	↑	↓	↓
Federal Statute Crimes	↑	↑	↑	↑	↑
Traffic Crime	---	↑	---	--- ¹⁵	--- ¹⁵
Other <i>Criminal Code</i> Offences	↑	↑	↑	--- ¹⁶	↑
Home Ownership	↑	↑	↑	---	↑
Crowding	↓	↓	↓	↓	↓
Core Need	↓	↓	↓	↓	↑

⁹ No conclusion is made about the trend, as we cannot compare nurse-diagnosed injuries before and after the mines began.

¹⁰ Due to the small number of suicides and the small population size, it is hard to tell if there is a real trend.

¹¹ The trend in Yellowknife follows the national trend and reflects general changes in society, rather than an increase related to diamond mine development.

¹² Observed trend begins in 2000/01.

¹³ No conclusion is made about the trend, as we cannot compare spousal assault before and after the mines began.

¹⁴ Both of these types of crime have not exceeded levels seen before the mines. But they have come very close.

Further evidence may be needed to see whether high rates may be linked to mine employment.

¹⁵ Overall, traffic crime is down.

¹⁶ Rates of Other *Criminal Code* Crimes have not exceeded levels seen before the mines. But they have come very close. Further evidence may be needed to see whether high rates may be linked to mine employment.

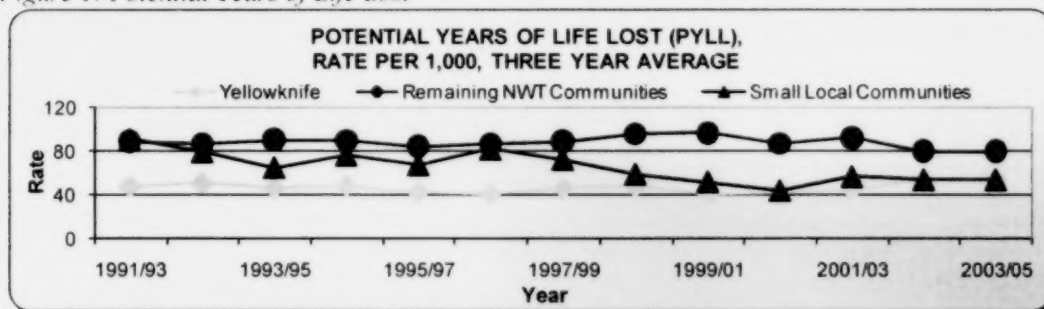
INDICATOR	COMPANY PREDICTED TREND			GNWT OBSERVED TREND	
	BHPB	Diavik	De Beers	Small Local Communities	Yellowknife
Cultural Well-being and Traditional Economy					
Aboriginal Language Use (Youth)	↓	↓	↓	↓	↓
Trapping	↓	↓	---	↑	---
Hunting and Fishing	↓	↑	---	↑	↓
Non-traditional Economy					
Average Income	↑	↑	↑	↑	↑
Wage Disparity	↑	↑	↑	↓	↓
Income Assistance Cases	↓	↓	↓	↓	↓
Employment Rate	↑	↑	↑	↑	↓
Unemployment Rate	↓	↓	↓	↓	---
Participation Rate	↑	↑	↑	↑	↓
High School Completion	↑	↑	↑	↑	↑
Less than Grade 9	↓	↓	↓	↓	↓
Business Activity	↑	↑	↑	↑	
Net Effect on Government					
Net Government Costs	↑	↓	↑	---	¹⁷
Sustainable Development					
Secondary Industry	---	---	---	↑	↑

¹⁷ The direction of the trend cannot be stated with certainty. The GNWT does not have the information systems in place to conclude on this trend with certainty.

IV. Socio-Economic Indicator Graphs

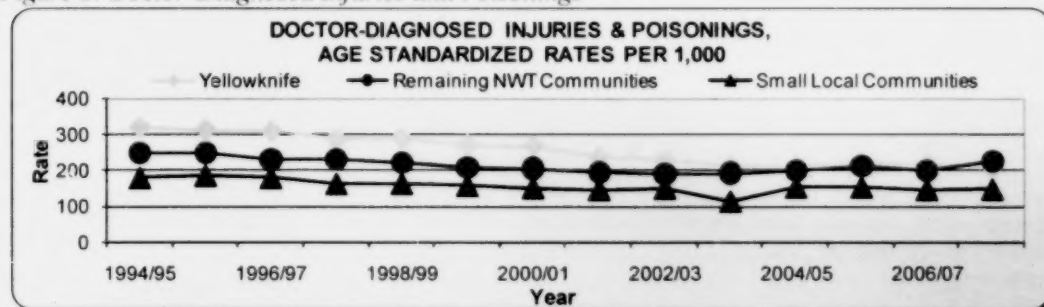
Community, Family & Individual Well-being

Figure 1: Potential Years of Life Lost



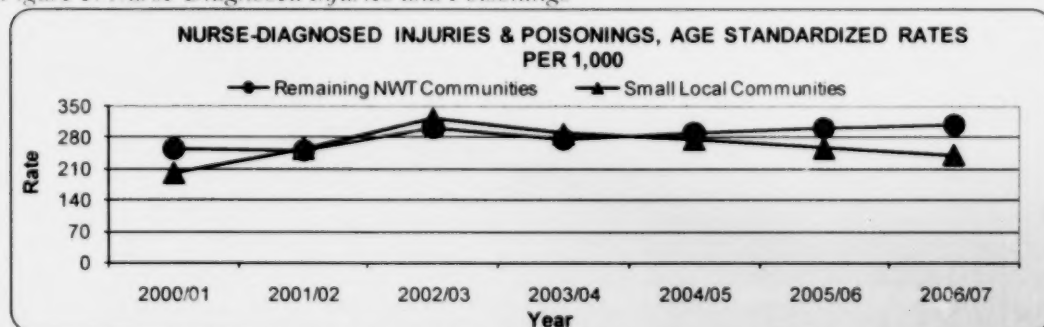
Source: Statistics Canada Vital Statistics and NWT Bureau of Statistics.

Figure 2: Doctor-Diagnosed Injuries and Poisonings



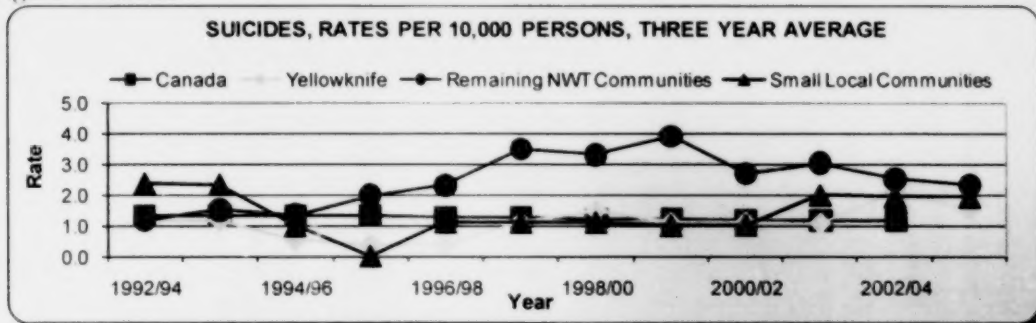
Source: NWT Department of Health and Social Services Medicare and NWT Bureau of Statistics.

Figure 3: Nurse-Diagnosed Injuries and Poisonings

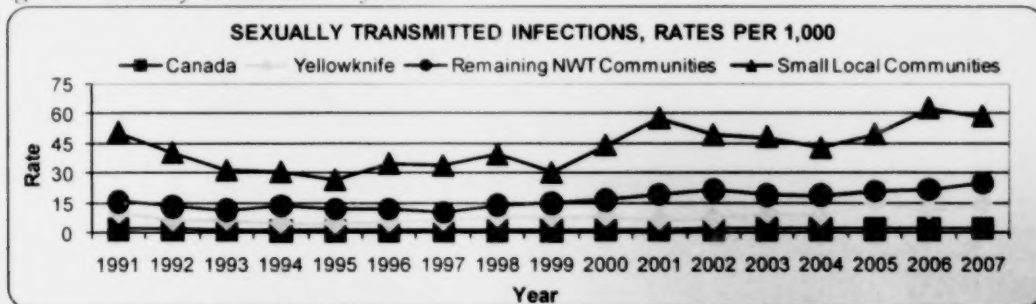


Source: NWT Department of Health and Social Services Health Suite and NWT Bureau of Statistics.

Figure 4: Suicides

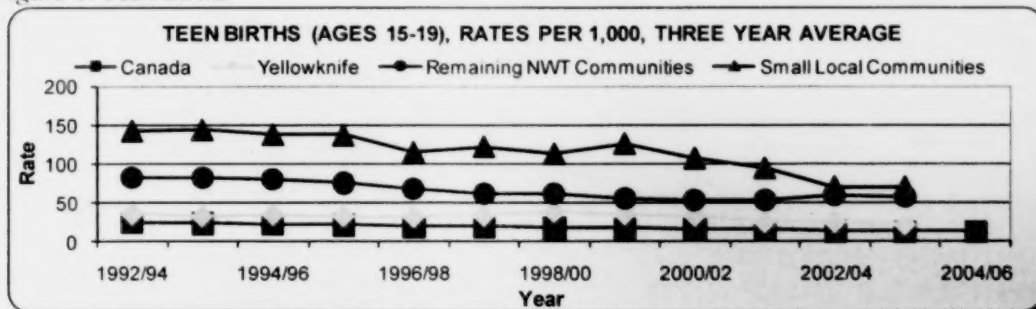


Source: Statistics Canada Vital Statistics.

Figure 5: Sexually Transmitted Infections¹⁸

Source: NWT Health and Social Services Communicable Disease Registry; NWT Bureau of Statistics; Sexually Transmitted Diseases in Canada: 1996 Surveillance Report; and Public Health Agency of Canada.

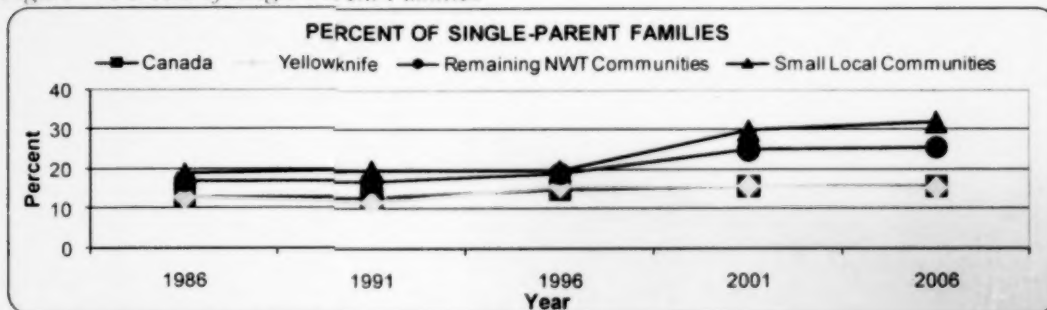
Figure 6: Teen Births



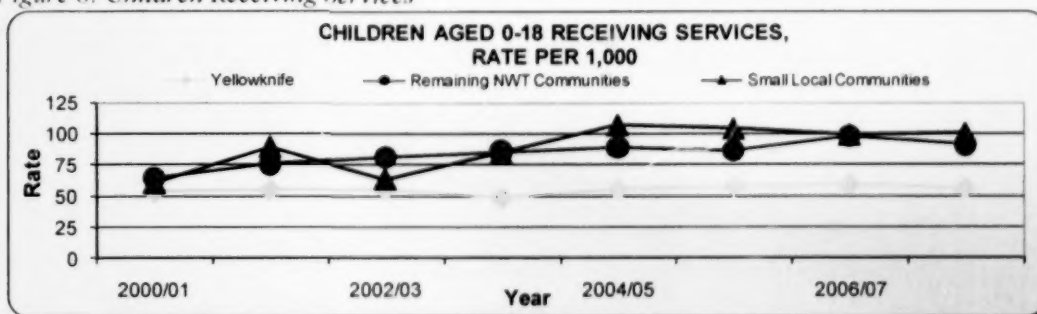
Source: Statistics Canada Vital Statistics.

¹⁸ Reported STIs include Chlamydia and Gonorrhea.

Figure 7: Percent of Single Parent Families

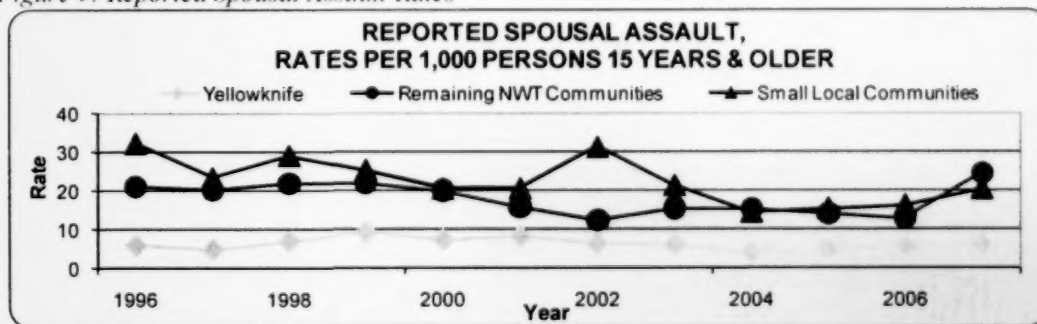


Source: Statistics Canada Census.

Figure 8: Children Receiving Services¹⁹

Source: NWT Health and Social Services Child and Family Information System and NWT Bureau of Statistics.

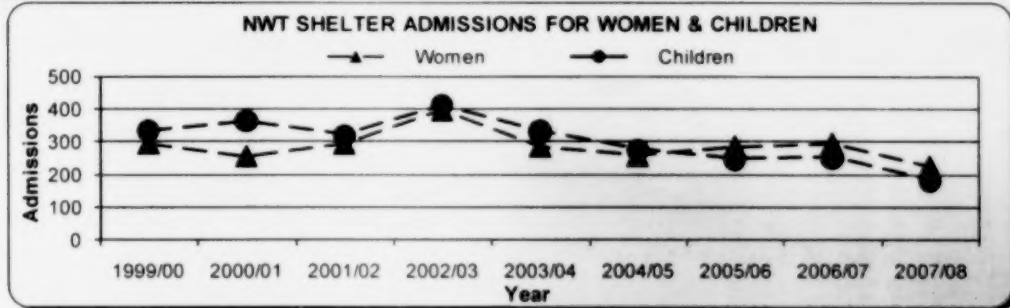
Figure 9: Reported Spousal Assault Rates



Source: RCMP UCR Statistics System.

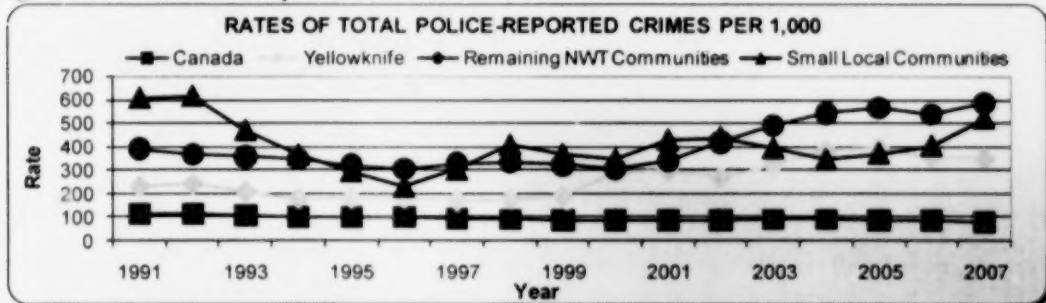
¹⁹ The way child welfare had been handled in the NWT changed in the late 1990s through the implementation of the *Children and Family Services Act* (October 1998). Because of these legislative changes, the rate of children receiving services can only be examined from 2000/01 onwards (see Section 2.3 Appendix B: Extended Analysis for further explanation).

Figure 10: Admission of Women and Children to NWT Shelters



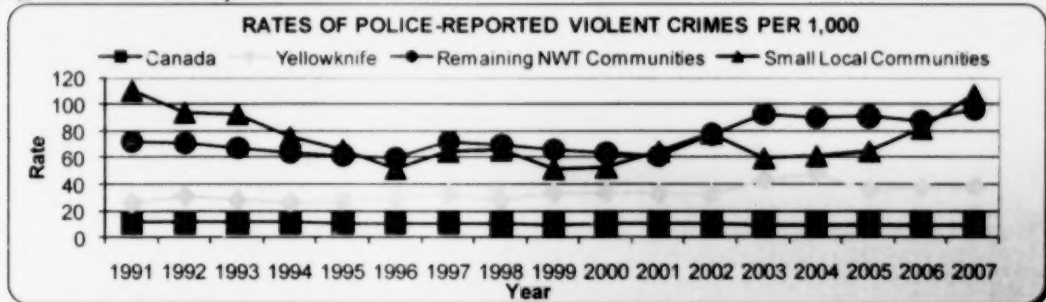
Source: NWT Health and Social Services Family Violence Shelter Reports.

Figure 11: Total Police-Reported Crimes



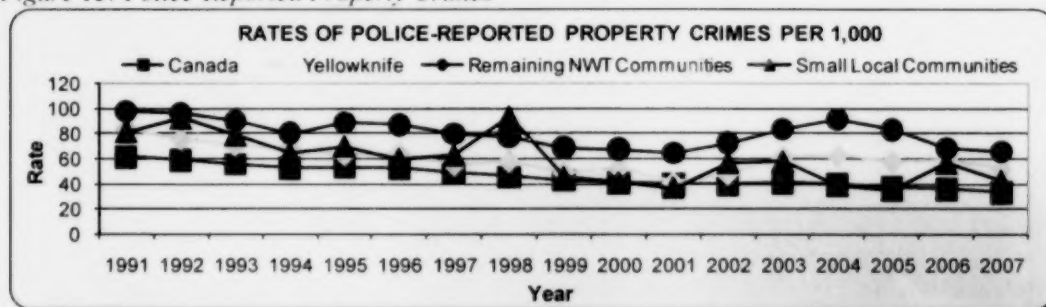
Source: RCMP UCR Statistics System.

Figure 12: Police-Reported Violent Crimes



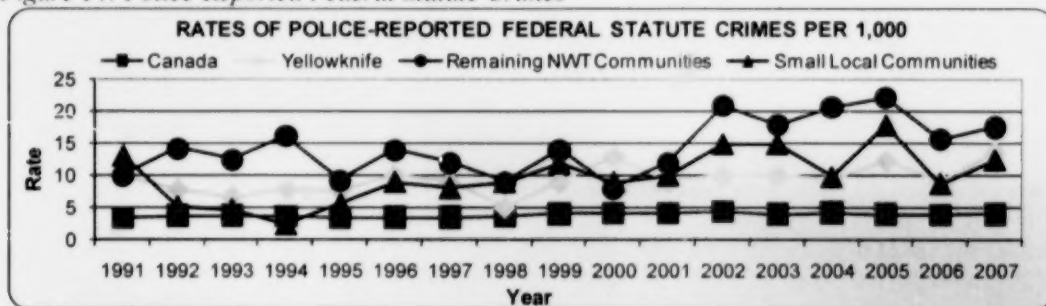
Source: RCMP UCR Statistics System.

Figure 13: Police-Reported Property Crimes



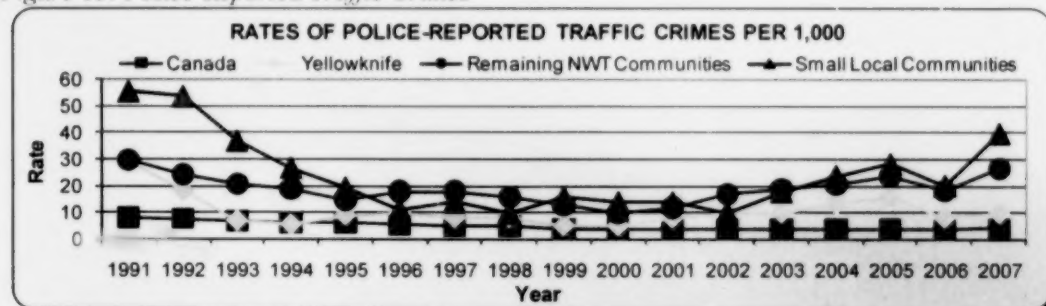
Source: RCMP UCR Statistics System.

Figure 14: Police-Reported Federal Statute Crimes



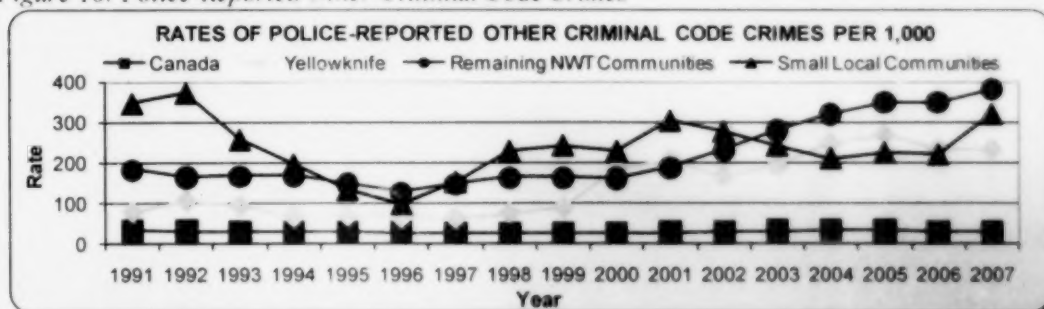
Source: RCMP UCR Statistics System.

Figure 15: Police-Reported Traffic Crimes



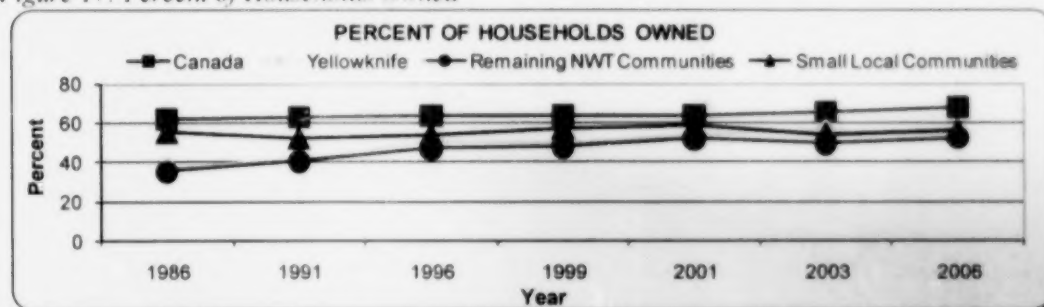
Source: RCMP UCR Statistics System.

Figure 16: Police-Reported Other Criminal Code Crimes



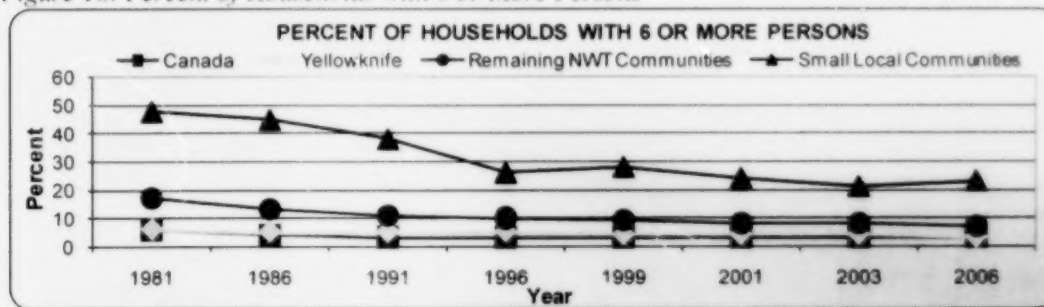
Source: RCMP UCR Statistics System.

Figure 17: Percent of Households Owned



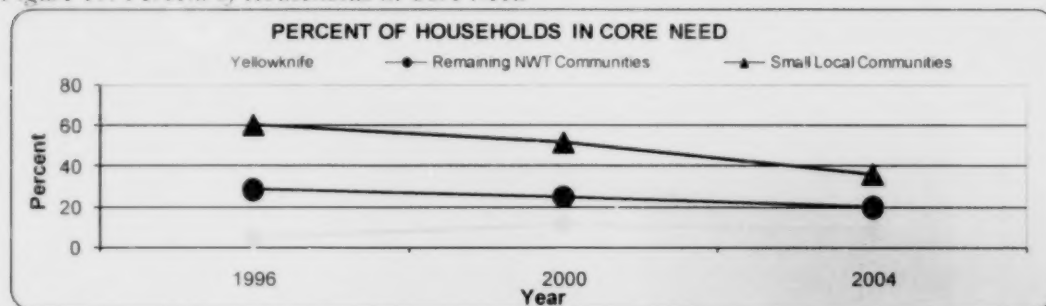
Source: NWT Housing Needs Survey, NWT Community Survey and Statistics Canada Census.

Figure 18: Percent of Households with 6 or More Persons



Source: NWT Housing Needs Survey, NWT Community Survey and Statistics Canada Census.

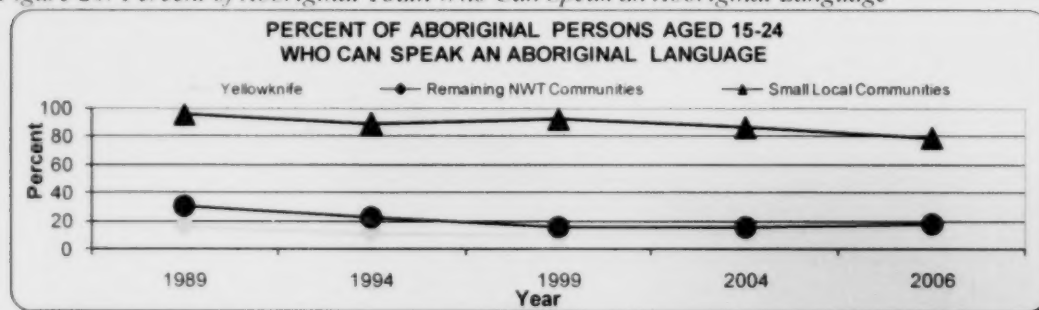
Figure 19: Percent of Households in Core Need



Source: NWT Housing Needs Survey and NWT Community Survey.

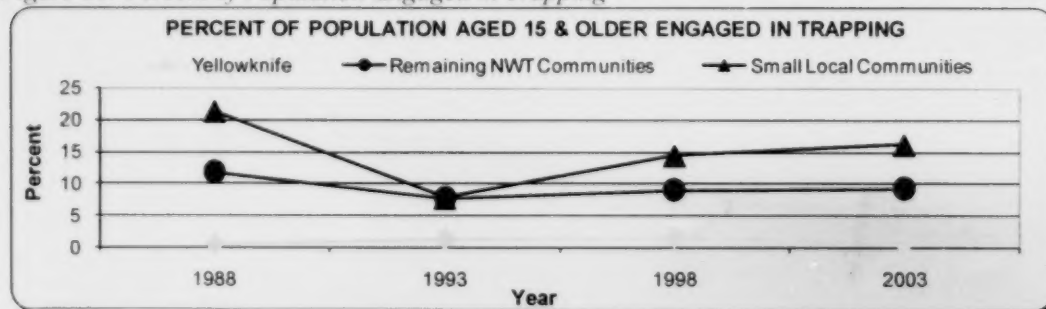
Cultural Well-being and Traditional Economy

Figure 20: Percent of Aboriginal Youth Who Can Speak an Aboriginal Language



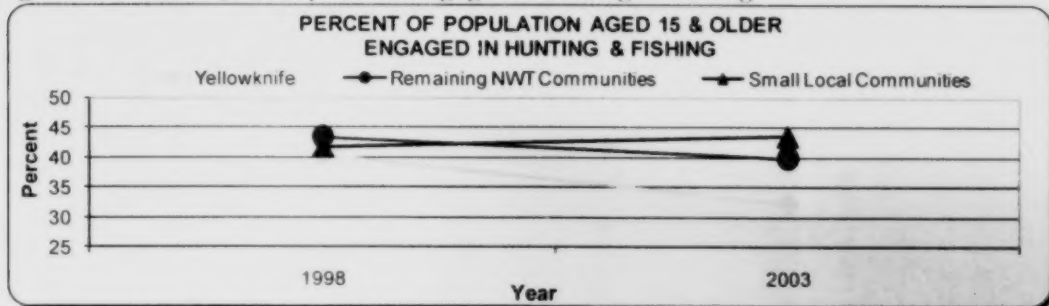
Source: NWT Labour Force Survey and NWT Community Survey.

Figure 21: Percent of Population Engaged in Trapping



Source: NWT Labour Force Survey and NWT Community Survey.

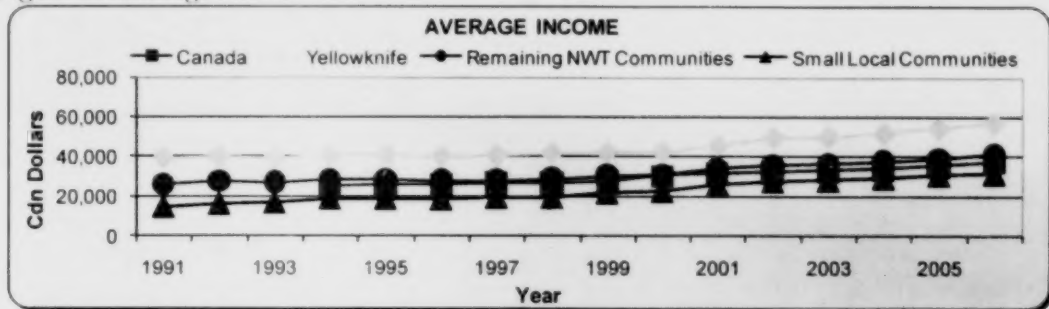
Figure 22: Percent of the Population Engaged in Hunting or Fishing



Source: NWT Labour Force Survey and NWT Community Survey.

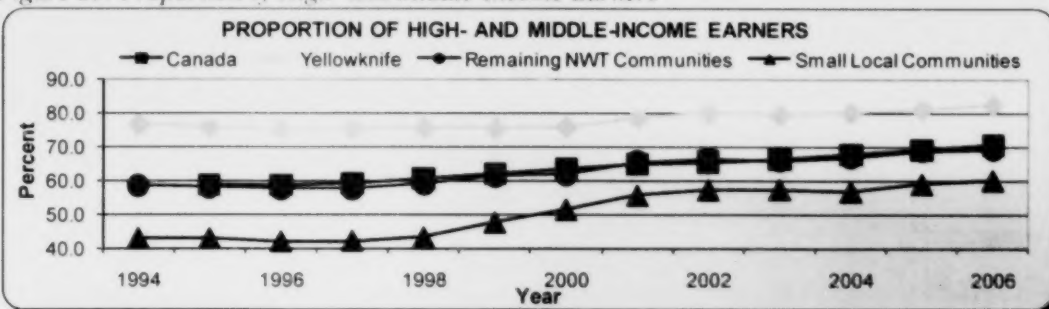
Non-traditional Economy

Figure 24: Average Income



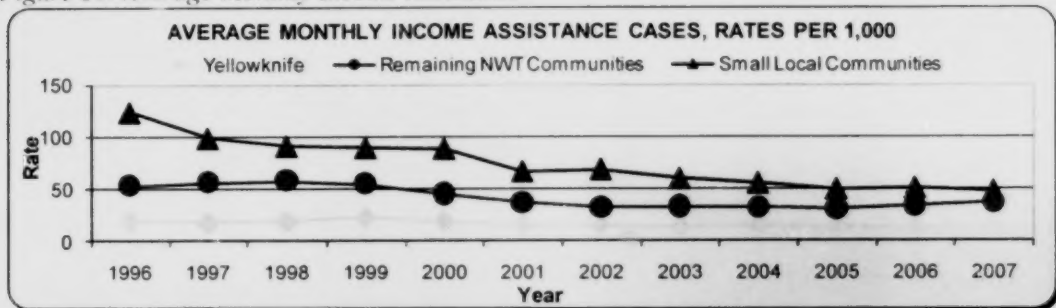
Source: Statistics Canada

Figure 25: Proportion of High- and Middle-Income Earners



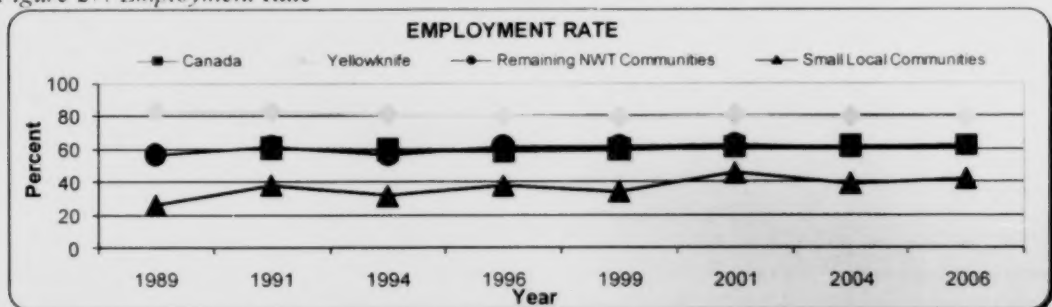
Source: Statistics Canada.

Figure 26: Average Monthly Income Assistance



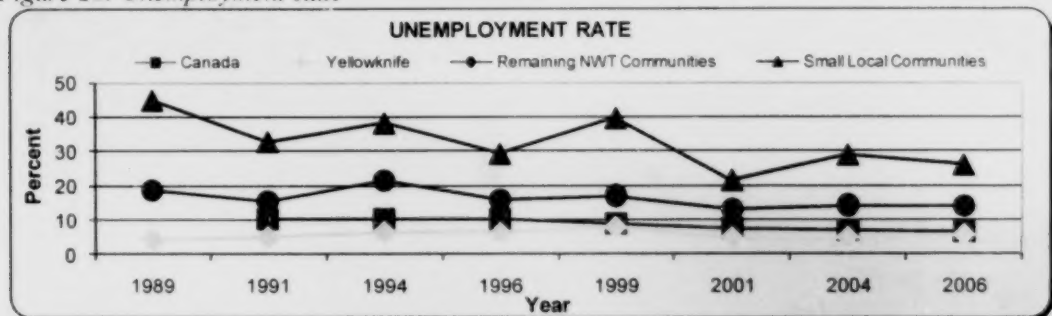
Source: NWT Education, Culture and Employment and NWT Bureau of Statistics.

Figure 27: Employment Rate



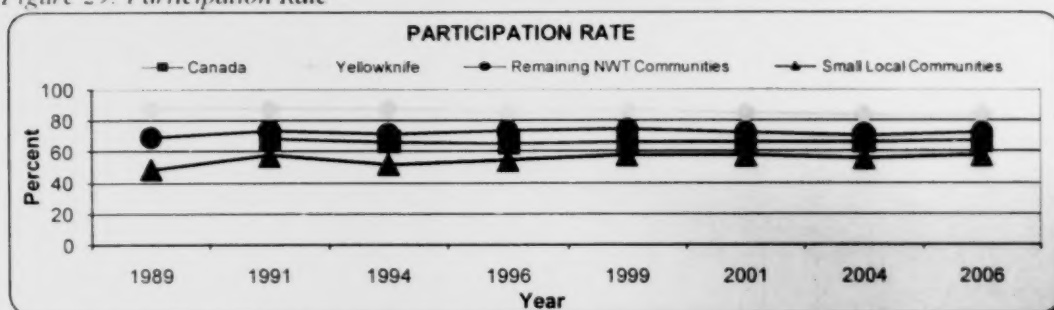
Source: Statistics Canada Census, NWT Labour Force Survey and NWT Community Survey.

Figure 28: Unemployment Rate



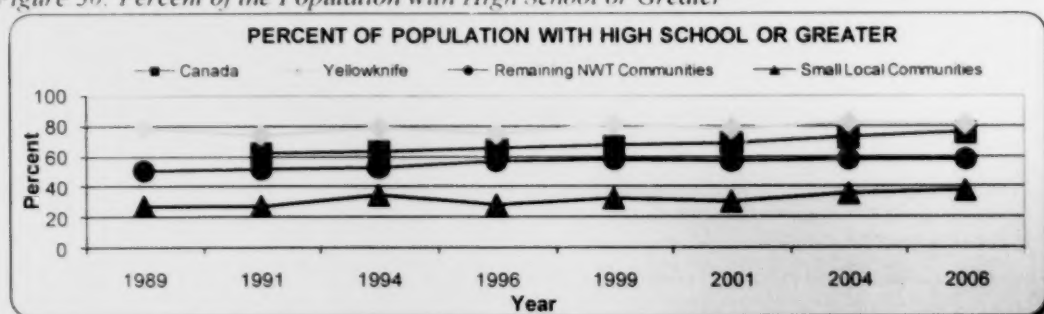
Source: Statistics Canada Census, NWT Labour Force Survey and NWT Community Survey.

Figure 29: Participation Rate



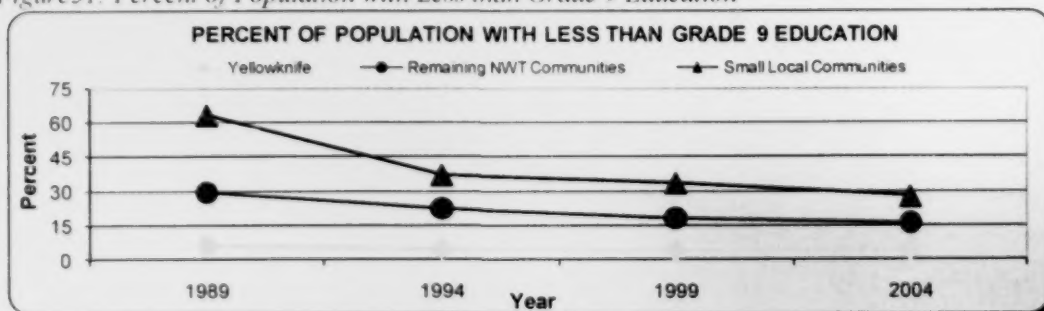
Source: Statistics Canada Census, NWT Labour Force Survey and NWT Community Survey.

Figure 30: Percent of the Population with High School or Greater



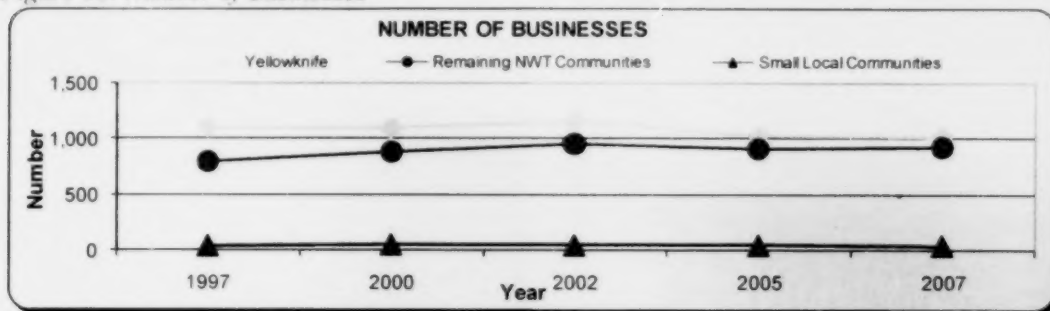
Source: Statistics Canada Census, NWT Labour Force Survey and NWT Community Survey.

Figure 31: Percent of Population with Less than Grade 9 Education



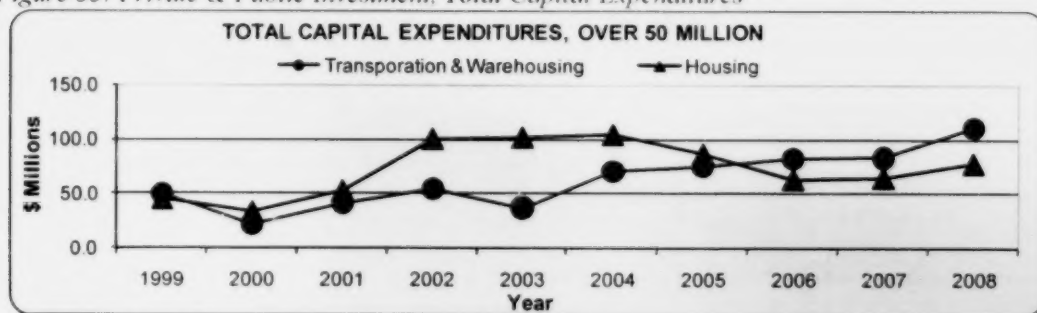
Source: NWT Labour Force Survey and NWT Community Survey.

Figure 32: Number of Businesses



Source: ITI database of telephone directory listings

Figure 33: Private & Public Investment, Total Capital Expenditures



Source: Statistics Canada.

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Glossary of Words Used

Capital Expenditures

The gross expenditures on fixed assets for use in the operations of the organization or for lease or rent to others.

Communicable Disease

Any disease that can be transmitted from one person to another. The most common cause is through bodily contact or through germs in the air.

Employment Rate

The percent of persons aged 15 and older who are employed.

Labour Force

Those people 15 years and older who are working or who are actively looking for work, temporarily laid off and expected to return to work, or who have made arrangements to start a new job.

Overcrowding (housing indicator)

Overcrowding is defined as having six or more residents in one house.

Participation Rate

The percent of people, 15 years of age and over, who are in the labour force.

Potential Years of Life Lost (PYLL)

PYLL is calculated by assuming that an average life lasts 75 years, and by subtracting from 75 the age at which a person dies. For example, a person who died at age 65 would have a PYLL of 10 ($75 - 65 = 10$). A person who died at age 20 would have a PYLL of 55. The PYLL for an entire population is the sum of all the years of life lost by those who died before reaching the age of 75.

Single-parent Families

Single-parent families consist of a parent living in a home with no spouse or common-law partner present, and with at least one child that has never been married.

Socio-economic²⁰

A look at 'socio-economic' impacts includes social, economic, and fiscal impacts. Social impacts can be divided into two types: demographic and socio-cultural.

Demographic impacts — changes in population numbers and characteristics (sex ratio, age structure, migration rates and related service demands).

Socio-cultural impacts — changes in social structures, organizations and relationships, and in cultural and value systems such as language or beliefs.

Economic impacts — changes in employment, income and business activity.

Fiscal impacts — the economic consequences of development for government organizations.

Unemployed²¹

Refers to persons who, during the week prior to the survey; (i) were without work, had actively looked for work in the previous four weeks and were available for work; or (ii) had been on temporary lay-off and expected to return to their job; or (iii) had definite arrangements to start a new job in the next four weeks.

Unemployment Rate

The percent of the labour force who were unemployed during the reference period.

²⁰ From "UNEP EIA Training Resource Manual — EIA: Issues, Trends and Practice". R. Bisset, Annex page 8. As found at the following web site: www.ea.gov.au/assessments/eianet/unepmanual/bisset/annex.html.

²¹ From "1999 Labour Force Survey" - Northwest Territories Bureau of Statistics.

The Government of the Northwest Territories takes no responsibility
for financial losses suffered as a result of reliance on the information in this report.

Appendix A
Company Predictions

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The Table below quotes predictions made by BHP, Diavik and De Beers about the possible impacts on the NWT from each of their projects. These statements are quoted from material submitted for the environmental assessment of each project.

COMPANY	PREDICTION
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COMMUNITY, FAMILY & INDIVIDUAL WELL-BEING TRENDS

1 Individual Well-Being

BHP	<p>"... project employment could aggravate existing social problems by increasing stress and related alcohol abuse, by alienating people from traditional lifestyles and by increasing the pace of change in communities already having difficulty dealing with change."¹</p> <p>"Small communities with less wage employment experience, particularly industrial employment, will be more affected by internal factors that determine their ability to handle change...even a half dozen people working directly for the project could increase total community personal income by as much as 15%. The impacts in these communities will be in direct relationship to a community's ability to cope with rotational employment absences and spending of new wage employment dollars."²</p>
DE BEERS	<p>De Beers noted that expansion of the wage economy into communities, through the development of the Snap Lake Diamond Project, may exacerbate certain pre-existing dysfunctional conditions in the communities. It clarified this was a reference to substance abuse, drug addiction, suicide rates, teen pregnancy, fetal alcohol effect (FAE) and fetal alcohol syndrome (FAS), sexual abuse, HIV/Aids, and Hepatitis C.³</p> <p>"Job training programs may provide incentives to enrol in substance abuse and alcohol addiction treatment. This, in turn, may have long-lasting physical and mental health benefits to the individual being treated."⁴</p>
DIAVIK	<p>"An inflow of single transient workers, and students involved in rotational employment may bring an element of instability to and affect the human health of the community."⁵</p> <p>"Increased disposable income spent on alcohol and drugs may worsen human health conditions of individuals, families and the community."⁶</p> <p>"The Diavik Diamonds Project while offering benefits could potentially add to the complexity of human health issues in the communities."⁷</p>

¹ BHP 1995 EIS, page 4.164.

² Ibid, page 4.164.

³ De Beers Response to MVEIRB Information Request No. 1.37, June 2002, page 119.

⁴ De Beers EAR, page 5-130.

⁵ Diavik SEER, page 159.

⁶ Ibid, page 162-163.

⁷ Ibid, page 162.

2 Family & Community Well-Being

- BHP** The EIS talked about indirect impacts of employment "resulting in greater family violence and family breakdown".⁸
- "The 'at work' rotation is well below the length of time at which a measurable deterioration in worker... morale and family relationships begins (21 days)..."⁹
- DE BEERS** "Expansion of the wage economy into communities, through the development of the Snap Lake Diamond Project, may exacerbate certain pre-existing dysfunctional conditions in the communities."¹⁰ De Beers clarified this was a reference to, among other things, teen pregnancy.¹¹
- DIAVIK** "Respecting ... rotation work and associated absenteeism from home, there would likely be a period of personal and family adjustment lasting about two years. Potential effects could include additional demands on family and social services and protection services."¹²

2.1 Single-parent Families

- BHP** "Absence from home for two weeks at a time could have an impact on marriages ... Stress caused by a number of factors – need for money, separation, suspected infidelity, are major causes of marriage breakdown. With a rotational work system, marriages are likely to experience some of the stress of separation. At the same time, the availability of jobs may relieve some financial stress."¹³
- "... Rotational shift work ... could create marital pressure for families not used to separation. Studies indicate that 68% of the Canadian LDC work force are married (includes non-Aboriginal people as well); however, the number of divorced employees is double that of the general public."¹⁴
- DE BEERS** "...families may break up as the educated or skilled family members go elsewhere to seek employment."¹⁵
- "There is increased risk of marital and family breakdown associated with stop-overs in Yellowknife as some employees (mostly male) engage in extra-marital affairs."¹⁶

⁸ BHP 1995 EIS, page 4.150.

⁹ Ibid, page 4.149.

¹⁰ De Beers EAR, page 5-123.

¹¹ De Beers Response to MVEIRB Information Request No. 1.37, June 2002, page 119.

¹² Diavik SEER, page 155.

¹³ BHP 1995 EIS, page 4.166-4.167.

¹⁴ BHP 1995 EIS, page 4.149.

¹⁵ De Beers EAR, page 5-132.

¹⁶ Ibid, page 5-136.

COMPANY PREDICTION

2.2 Children Receiving Services

- BHP In the 1995 EIS potential effects on human health resulting from identified causes included: "... an increase in social disruption with potential strain on policing and social services ..."¹⁷
- DE BEERS "Wage employment for an individual may result in a decline in reliance on social services, and a corresponding improvement in family relationships"¹⁸
- "If many individuals and families are coping poorly with the adjustments, the demands for rigorous and relevant support services will increase. Such support mechanisms may include marital/relationship counselling, child care services"¹⁹
- DIAVIK "Experience from previous northern projects indicates that new employees with large pay cheques tend to "blow" their money on alcohol first, taper off, and then spend more money and time on the home and family (Chenard 1979). Marriage and family problems caused by alcohol and absenteeism from home are prevalent in the younger generation and would place a short-term demand on counselling and protection services."²⁰
- "There would be an initial period of adjustment for employees and families ... During the adjustment period there may be increased demand for protection services."²¹

2.3 Family Violence

- BHP There may be "negative impacts of increased income such as alcohol and drug abuse, resulting in greater family violence and family breakdown."²²
- "... social problems existing within the Aboriginal communities may be compounded by an increase in wages. Additional expendable income can lead to alcohol and drug abuse and intensify existing problems such as violence."²³
- DE BEERS "In family situations where conflict, violence or other domestic problems are already present such issues may be exacerbated by the demands of the rotation schedule, resulting in increased social dysfunction and instability."²⁴
- "...in families with frequent conflict between spouses, decisions concerning the use of income may exacerbate conflict. Children may also be directly affected as victims of family violence and conflict."²⁵
- DIAVIK "...income and absence due to rotational employment may result in... family conflict."²⁶

¹⁷ BHP, 1999 EAR, Section 4.7.11.3 (Socio-economic Effects on Human Health), page 4-196.

¹⁸ De Beers EAR, page 5-26

¹⁹ Ibid, page 5-137.

²⁰ Diavik SEER, Section 7.4.5.1, Family and Social Services and Infrastructure, Effects.

²¹ Ibid, Section 7.4.7.1, Protection and Safety Services and Infrastructure, Effects.

²² BHP 1995 EIS, page 4.150.

²³ Ibid, page 1.46.

²⁴ De Beers EAR, page 5-135 – 5-136.

²⁵ Ibid, page 5-140.

²⁶ Diavik SEER, Table 32, page 157-158.

3 Crime

BHP "If alcohol and drug abuse (and crime that results from these abuses) increase, ... additional law enforcement personnel would be required. ... if the "fast buck" businesses converge on larger centres, particularly Yellowknife, policing agencies may have to deal with more fraud."²⁷

"Yellowknife is the most likely centre to experience an increase in drug trafficking. ... Since many NWT residents employed by the project will have to pass through Yellowknife on their way home, there is a possibility that readily available drugs may be purchased and carried to smaller communities."²⁸

"... If alcohol consumption increases, crime (particularly assaults) could increase."²⁹

"... social problems existing within the Aboriginal communities may be compounded by an increase in wages. Additional expendable income can lead to alcohol and drug abuse and intensify existing problems such as violence."³⁰

DE BEERS "As individuals and families try to cope with the lifestyle changes imposed by the rotational work schedule, the social fabric (*i.e.*, relationships and support systems) of communities will be affected. Community members at large may suffer from the effects of friends, extended family, or neighbours resorting to substance abuse or alcoholism when dealing with emotional issues, living in high conflict or violent home situations, or neglecting community and family responsibilities. Social capacity or stability may decrease."³¹

DIAVIK "Respecting ... rotation work and associated absenteeism from home, there would likely be a period of personal and family adjustment lasting about two years. Potential effects could include additional demands on... protection services."³²

"Employment, income, transportation and closure have the potential of affecting local protection services."³³

4 Housing

BHP "Regular income can improve the standard of living of both individuals and communities. People with regular incomes can purchase/build their own homes, relieving some of the stress on housing in many communities. They can purchase more goods ... and not only relieve stress of impoverished lifestyle, but circulate their dollars through the local economy to assist in overall improvements in the standard of living."³⁴

²⁷ BHP 1995 EIS, page 4.166.

²⁸ Ibid, page 4.167.

²⁹ Ibid, page 4.165.

³⁰ Ibid, page 1.46.

³¹ De Beers EAR, page 5-137.

³² Diavik SEER, page 155.

³³ Ibid, page 149.

³⁴ BHP 1995 EIS, page 4.168.

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- DE BEERS "With a consistent monetary income, individuals will have a greater level of security in providing for basic material needs, such as food, housing, or clothing."³⁵
- DIAVIK "Employment income and associated economic changes should enable residents of study area communities; [sic] particularly the smaller Dene, Métis and Inuit communities to privately purchase or rent houses."³⁶

CULTURAL WELL-BEING & TRADITIONAL ECONOMY

5 Cultural Well-Being & Traditional Economy

- BHP The impact of the Project on traditional Aboriginal lifestyle / culture was predicted to be negative but small.³⁷
- DE BEERS [for Aboriginal workers] "... impacts are primarily associated with... functioning in a pre-dominantly non-Aboriginal work environment and culture."³⁸
- "The limited amount of time in the community may limit individuals' ability to pursue Aboriginal traditional activities, which impacts on individuals' lifestyle and the maintenance of a cultural identity."³⁹
- "The family as a whole will also be affected by the limited time available to engage in traditional activities with all family members present. This may complicate efforts to maintain cultural traditions and identity."⁴⁰
- "It is not possible to predict with reasonable certainty whether individual and community involvement mining activities will negatively or positively impact on the subsistence economy in communities."⁴¹
- DIAVIK "... the context for expression important to the survival of Aboriginal languages could change."⁴²
- "Employment at the minesite in an English only environment may pose a risk to Aboriginal Languages. The presence of other Aboriginal language speakers at the minesite and the opportunity for Aboriginal workers to reside in their home communities may reduce this risk."⁴³
- "...wage based activities may erode... Dene, Métis and Inuit culture"⁴⁴

³⁵ De Beers EAR, page 5-138.

³⁶ Diavik SEER, page 155.

³⁷ BHP 1995 EIS, Table 4.2 and Table 4.4

³⁸ De Beers EAR, page 5-127.

³⁹ De Beers EAR, page 5-134.

⁴⁰ Ibid, page 5-135.

⁴¹ De Beers Canada Mining Inc. Conformity Response, page 27, August 2002.

⁴² Diavik SEER, Vol. 7.5.4.1.

⁴³ Ibid, Vol. 7.5.4.1.

⁴⁴ Diavik SEER, Table 32, page 157-158, 96.

"Out-migration from smaller Aboriginal communities affect[s] community organization and weaken[s] culture."⁴⁵

"Industrial work may erode traditional harvesting practices."⁴⁶

"Possible in-migration of job seekers to Yellowknife may change... harvesting patterns... Conflicts resulting from increasing competition for land and resources may alienate traditional land users from important harvesting activities."⁴⁷

"The renewable resource economy of study area communities should benefit from the proposed Project as more harvesters would have money to purchase equipment and supplies needed for harvesting activities."⁴⁸

NON-TRADITIONAL ECONOMY

6 Income & Employment

6.1 Average Income

BHP "Project-generated employment could increase NWT wage income by 3% per year during the construction phase and 5% per year during the operations phase assuming 1995 employment levels. Aboriginal communities and Coppermine could experience substantial increases in earned income in both the construction and operations phase."⁴⁹

"The project could also cause an increase of total earned income in these [Aboriginal] communities by over 33%."⁵⁰

"Induced employment from household responding of NWT Diamonds Project direct and indirect employment dollars could generate an additional 155 jobs in the Northwest Territories. Annual income for these jobs will be approximately \$5 million."⁵¹

DE BEERS "Job opportunities will largely accrue to the primary communities with the result being changes in the economic circumstance of many families of those communities as well as the communities themselves."⁵²

During Construction, "Total labour income impact for the NWT is estimated at some \$102.0 million."⁵³

⁴⁵ Diavik SEER, Table 32, page 157-158, 96.

⁴⁶ Ibid, Table 32, page 157-158

⁴⁷ Ibid, page 159.

⁴⁸ Ibid, page 155.

⁴⁹ BHP 1995 EIS, page 4.111.

⁵⁰ Ibid, page 4.132.

⁵¹ Ibid, page 4.102.

⁵² De Beers 2002 EAR, page 5-104.

⁵³ De Beers 2002 EAR, page 5-115.

COMPANY PREDICTION

"Annual labour income impacts for the NWT during the operations phase are estimated at some \$81.2 million."⁵⁴

DIAMIK "Employment and income effects associated with the proposed Project are positive, long lasting, and complementary to northern and Aboriginal aspirations and needs."⁵⁵

"The construction phase is ... projected to increase labour income in the NWT by \$182 million (all values are presented in constant 1997 dollars). ... The operation of the proposed Project will also increase labour income in the local study area by \$27 million ..."⁵⁶

6.2 Proportion of High-income Earners

BHP "In smaller communities, mine wage employment could widen the gap between 'haves' and 'have nots' in the community."⁵⁷

DE BEERS "In communities where employment opportunities remain limited to those created by the Snap Lake Diamond Project, community divisions and fractions may arise between 'have' and 'have-nots', which may exacerbate other social problems in the community."⁵⁸

DIAMIK "Project workers of Aboriginal ancestry seeking residency in Yellowknife, N'dilo and Detah may be more affluent than other Aboriginal people. In small communities such as N'dilo and Detah this situation could increase the gap between the 'have' and 'have nots' resulting in stresses to interpersonal and family relationships."⁵⁹

6.3 Income Assistance Cases

BHP "In the study area Assuming that 400 people would no longer need social assistance, this could mean a \$1.4 million annual savings..."⁶⁰

DE BEERS "As the household income level is increased for families reliant on welfare, the family will no longer be eligible for welfare assistance."⁶¹

DIAMIK "Other benefits of the proposed Project would include ... a fall in social assistance ... payments as more NWT residents gain employment."⁶²

⁵⁴ Ibid, page 5-116.

⁵⁵ Diavik SEER, Vol. 7.1.

⁵⁶ Diavik 1998 SEER, Executive Summary, Predicted Impacts in the NWT.

⁵⁷ BHP 1995 EIS, page 4.166.

⁵⁸ De Beers EAR, page 5-128, Table 5.3-7.

⁵⁹ Diavik SEER, Section 7.5.1.1.

⁶⁰ BHP 1995 EIS, page 4.183.

⁶¹ De Beers EAR, page 5-140.

⁶² Diavik SEER, Section 7.2.7.3, Operating Phase Impacts in the Local Study Area.

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6.4 Employment Rate

- BHP** "... the NWT Diamonds Project will have a significant impact on... communities that... fail to benefit from other major industries... While Yellowknife... will be a major beneficiary... of new jobs, the smaller First Nations communities, as well as Coppermine and Hay River, can also expect significant employment benefits."⁶³
- DE BEERS** "... the Project will create 450 construction jobs and in excess of 500 jobs during the operation of the mine facility. Job opportunities will largely accrue to the primary communities..."⁶⁴
- DIAVIK** "Cumulative employment and income effects associated with the proposed Project would be positive, long lasting, and complementary to northern and Aboriginal aspirations and needs and should address one of the most pressing issues in the study area communities – lack of employment and business opportunities."⁶⁵

6.5 Unemployment Rate

- BHP** "Hiring by the project is expected to reduce unemployment in Aboriginal communities from almost 40% to 30%."⁶⁶
- DE BEERS** "Through the creation of direct, indirect and induced employment opportunities, it is expected that the rates of unemployment will be reduced in Yellowknife, other primary study communities and the employment catchment communities."⁶⁷
- DIAVIK** "The proposed Project would ... contribute to a reduction in unemployment..."⁶⁸

6.6 Participation Rate

- BHP** Neither BHP nor De Beers referred to the participation rate. However, statements on employment and unemployment imply the participation rate would increase.
- DE BEERS**
- DIAVIK** "The proposed Project would ... contribute to ... an increase in participation rates."⁶⁹

7 Education

- BHP** "Employment possibilities with the NWT Diamonds Project can provide an incentive for people to stay in school, if only to attain the education level required for apprenticeship positions."⁷⁰
- "Government, community and Proponent sponsored "stay in school" programs will encourage more young people to complete at least Grade 10."⁷¹

⁶³ BHP 1995 EIS, Vol. 1.

⁶⁴ De Beers EAR, page 5-104.

⁶⁵ Diavik SEER, Vol. 7.6.

⁶⁶ BHP 1995 EIS, page 4.132.

⁶⁷ June 2002 MVEIRB Information Request No. 1, Response 1.27(c), page 100.

⁶⁸ Diavik SEER, Section 7.3.

⁶⁹ Diavik SEER, Section 7.3.

⁷⁰ BHP 1995 EIS, page 4.180.

⁷¹ Ibid, page 4.86-4.88.

COMPANY PREDICTION

DE BEERS	<p>"The opportunity for future wage employment may also motivate unqualified individuals to upgrade their educational level and general life skills to meet project standards for employment eligibility."⁷²</p> <p>"It is possible too, that individuals participating in training or educational programs will inspire other family members to improve their educational level or join in various skills development programs."⁷³</p> <p>"The achievement of a certain level of education and skills may, in the longer run, spur demands for further education and training programs..."⁷⁴</p>
DIAVIK	<p>"Diavik initiatives would contribute to the development of able and skilled employees, the support and encouragement of future employees, and the reduction of employment barriers. Through proposed education and training initiatives, opportunities for all northerners would increase..."⁷⁵</p>

8 Business

BHP	<p>"... exploration activity has allowed businesses to start the expansion required to adequately service an expanded northern mining industry, and has added to the local supply of service and retail operations... Positive impacts far outweigh negative impacts in Yellowknife, since a project such as the NWT Diamonds Project is needed if Yellowknife is to continue to grow and prosper."⁷⁶</p> <p>"On the economic side, the impacts [for First Nations Communities] would be positive. Increased dollars in the economy could foster the expansion of existing businesses or the start-up of new businesses, particularly in the retail and personal services area. In turn this could generate more employment and wage income."⁷⁷</p>
DE BEERS	<p>"If financial and human resources are spent in the community to provide basic education and skills training, but no support is provided to use these skills for local business initiatives... economic development at the community level will not occur."⁷⁸</p> <p>"Given that the mine is a major development project, it is expected to be a catalyst for benefiting Aboriginal and northern business."⁷⁹</p>
DIAVIK	<p>"Tourism services and infrastructure may improve and expand, particularly in the smaller Dene, Métis and Inuit study area communities..."⁸⁰</p>

⁷² De Beers EAR, page 5-129.

⁷³ Ibid, page 5-131.

⁷⁴ Ibid, page 5-133.

⁷⁵ Diavik SEER, page 136.

⁷⁶ BHP 1995 EIS, page 4.127.

⁷⁷ Ibid, page. 4.133.

⁷⁸ De Beers EAR, page 5-133.

⁷⁹ Ibid, page 5-104.

⁸⁰ Diavik SEER, page 156.

COMPANY PREDICTION

“... initiatives could result in the expansion of existing businesses, the creation of new businesses...”⁸¹

“Use of the rail system to transport goods and fuel will have a positive affect... its continued use would enhance Hay River and Enterprise as northern gateway communities.”⁸²

“Anticipated increases in economic activity should stimulate local economies and support their development.”⁸³

NET EFFECT ON GOVERNMENT

9 Net Effect on Government

BHP “Annual costs to the federal and territorial governments due mainly to the 1,000 people moving to the NWT as a result of the NWT Diamonds Project are expected to be \$4 million and \$10 million, respectively. Offsetting these costs is a potential \$3 million annual savings in social assistance and subsidy payments as a result of increased employment...”⁸⁴

DE BEERS “If many individuals and families are coping poorly with the adjustments, the demands for rigorous and relevant support services will increase.”⁸⁵

DIAMIK “Other benefits of the proposed Project would include a reduction in government expenditures due to a fall in social assistance and unemployment payments.”⁸⁶

SUSTAINABLE DEVELOPMENT

10 Secondary Industry

BHP “... final cleaning and sorting of rough diamonds ... is most likely to be Antwerp in Belgium.”⁸⁷

DE BEERS During the environmental assessment of the De Beers Snap Lake Project, De Beers indicated that it would support GNWT efforts to develop secondary industry.⁸⁸

⁸¹ Ibid, Vol. 7.3.9.1.

⁸² Ibid, page 153.

⁸³ Ibid, page 154.

⁸⁴ BHP 1995 EIS, page 4.182.

⁸⁵ De Beers EAR, page 5-137.

⁸⁶ Diavik SEER, page 116.

⁸⁷ BHP 1995 EIS, page 1.10.

⁸⁸ MVEIRB Technical Sessions for De Beers Snap Lake Diamond Project, 2003.

Appendix B

Extended Analysis

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**COMMUNITY, FAMILY &
INDIVIDUAL WELL-BEING**

1 Individual Well-being

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 1.

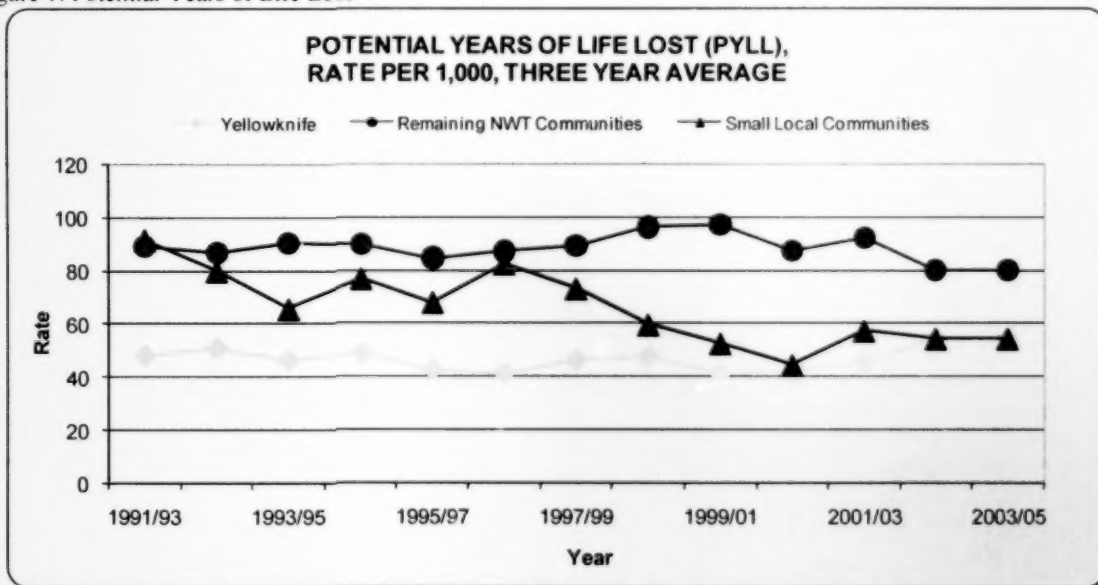
1.1 Potential Years of Life Lost

Potential Years of Life Lost (PYLL) indicates early death. Often this can be avoided. PYLL is a useful measure of health, well-being, and lifestyle choice. The Glossary at the back of this Report tells you more about this indicator. Because of large changes in rates from one year to the next, we report PYLL as a three-year average rate per 1,000 people.

1.1.1 Observations

The PYLL rate has gone up a little in Yellowknife. It has dropped in Small Local Communities.

Figure 1: Potential Years of Life Lost



Source: Statistics Canada Vital Statistics and NWT Bureau of Statistics.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑		
Diavik	↑		
De Beers	↓	↓	↑

1.1.2 Analysis

It is possible that the PYLL rate in Small Local Communities has gone down because of a better standard of living or better health services. It could also be due to better access to health services.

1.2 Injuries

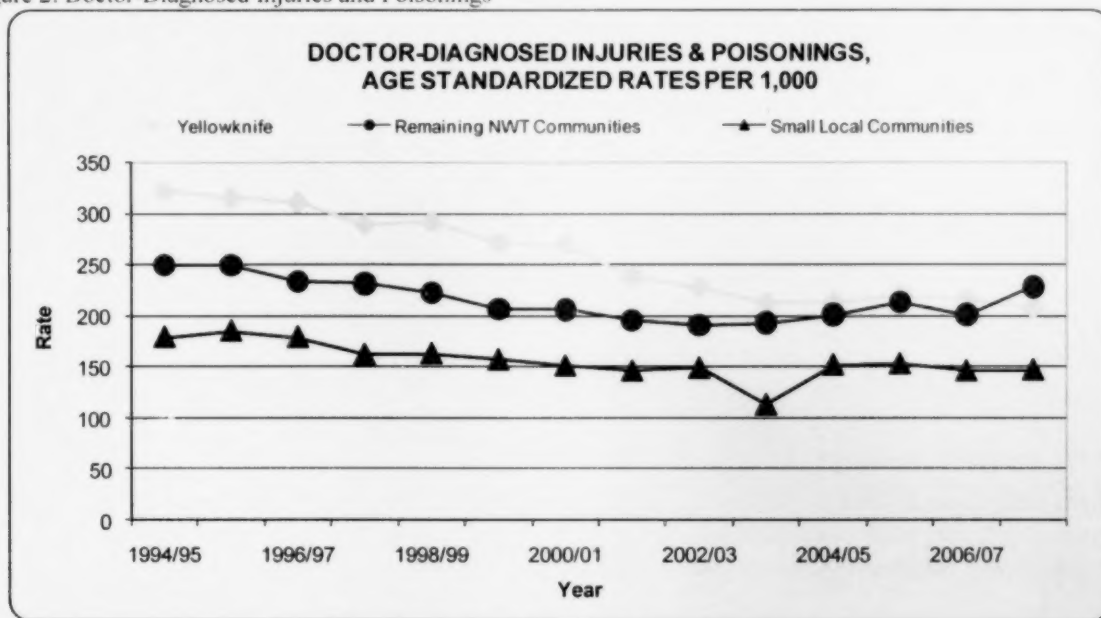
Injuries tell us if more reckless behaviour or violence is taking place. These may follow rapid changes in society. Injuries include major trauma (broken bones, severe burns, accidental or intentional death), minor wounds (cuts, scrapes and bruises), and poisonings. Numbers show diagnosed injuries, not the number of people.¹ One person can have many injury diagnoses in a year.

The Report shows age-standardized injuries. This lets us compare communities that have different age groups or ages that change over time. For example, one community may have more young people than another. Young people tend to have more injuries than older people. If we do not adjust rates for age, we might get the wrong idea about how many injuries happen.²

1.2.1 Observations

Doctors are seeing fewer injuries throughout the NWT. We see this trend most clearly in Yellowknife. Outside Yellowknife, nurses diagnose most injuries.

Figure 2: Doctor-Diagnosed Injuries and Poisonings



Source: NWT Department of Health and Social Services Medicare and NWT Bureau of Statistics.

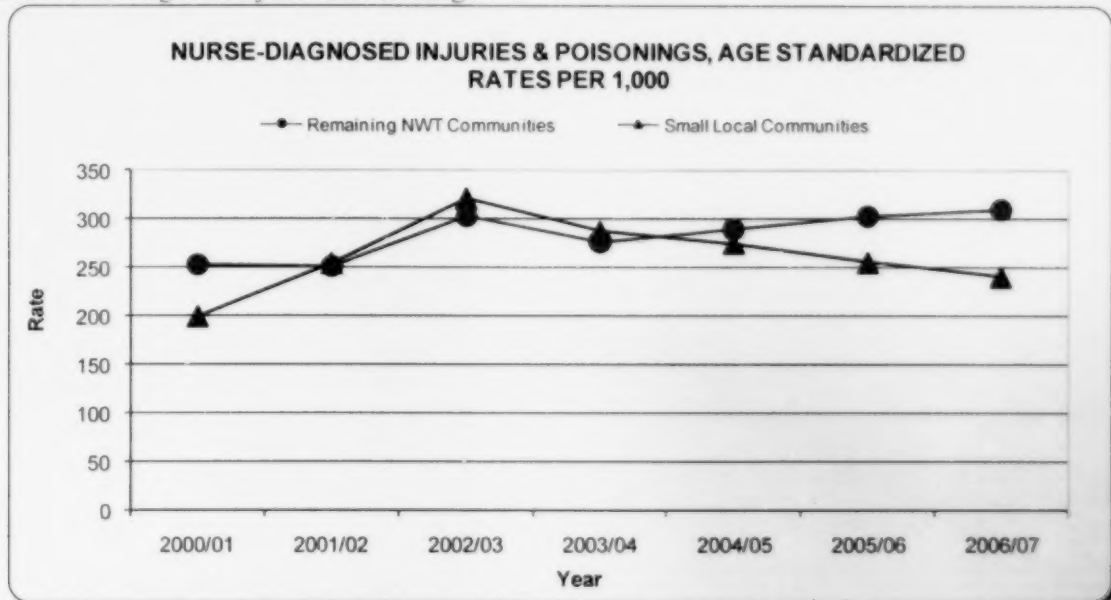
¹ For more information on data limitations surrounding doctor-diagnosed injuries, see Data Tables attached.

² For more information on age-standardization, see NWT Department of Health and Social Services, *Report to the Residents of the Northwest Territories on Comparable Health and Health System Indicators, 2004*, p. 3.

The way nurses record injuries changed in 2000. Data from before 2000 cannot be compared to more recent data.

Injuries have been dropping in Small Local Communities since fiscal year 2002/03. However, the data does not show us if this is lower than it was when the mines began in 1996.

Figure 3: Nurse-Diagnosed Injuries and Poisonings



Source: NWT Department of Health and Social Services Health Suite and NWT Bureau of Statistics.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑	--- ³	↓
Diavik	↑		
De Beers	↓		

1.2.2 Analysis

The downward long-term trend in Yellowknife may be due to the success of injury prevention efforts.

³ No conclusion is made about the trend, as we cannot compare nurse-diagnosed injuries before and after the mines began.

1.3 Suicides

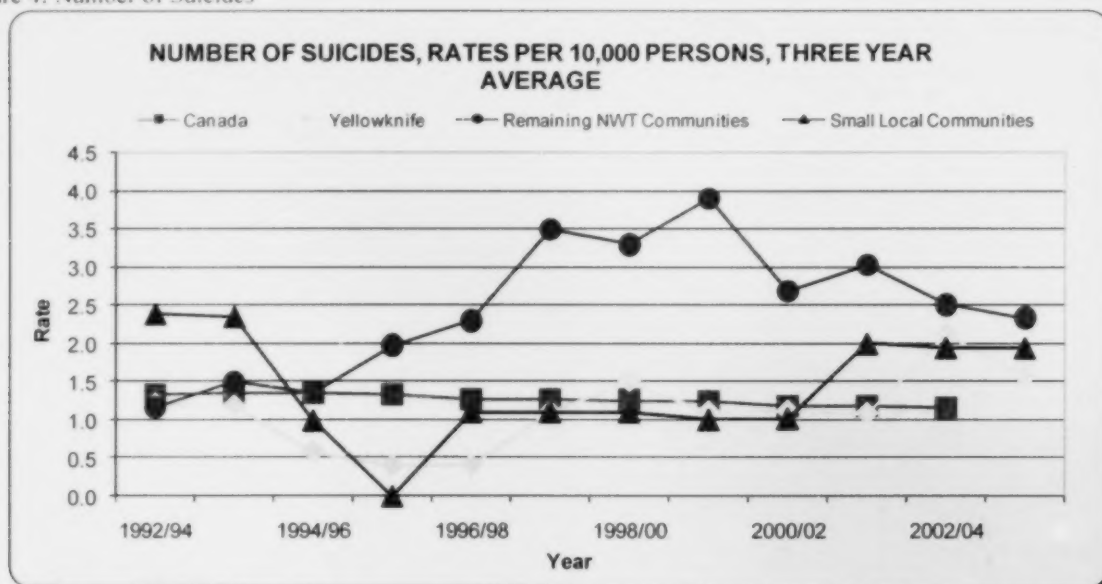
We report suicides because there is a link between these and social issues. We often see suicide with mental health problems such as depression. We also see suicide with social issues such as separation from a spouse, substance abuse and dependencies.

This data only takes into account deaths that are recorded as suicide. Because the number of suicides varies so much from year to year, three-year averages can be useful. They smooth out the year-to-year variations seen with small numbers. However, readers should view these with caution. There may be only two or three suicides in a given three-year period. This makes it hard to judge trends.

1.3.1 Observations

The number and rate of suicides in the NWT have gone up.⁴ There may have been an increase in Yellowknife. There may have been an overall decrease in rates in Small Local Communities. However, in both Yellowknife and the Small Local Communities, it is difficult to be sure if there is a trend because the number of suicides and population sizes are low. By contrast, it is easier to say that Canadian rates have gone down slowly, because of the larger number of suicides and the larger population size.

Figure 4: Number of Suicides



Source: Statistics Canada Vital Statistics.

⁴ See Tables 5 and 5.1 in Appendix C: Data Tables.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	---	---	---
Diavik	---	---	---
De Beers	↑		

1.3.2 Analysis

The small number of suicides makes it hard to define trends. As a result, it is hard to tell whether diamond mining has had a positive or negative impact.

⁵ Due to the small number of suicides and the small population size, it is hard to be sure if there is a real trend.

1.4 Communicable Diseases

SEXUALLY TRANSMITTED INFECTIONS

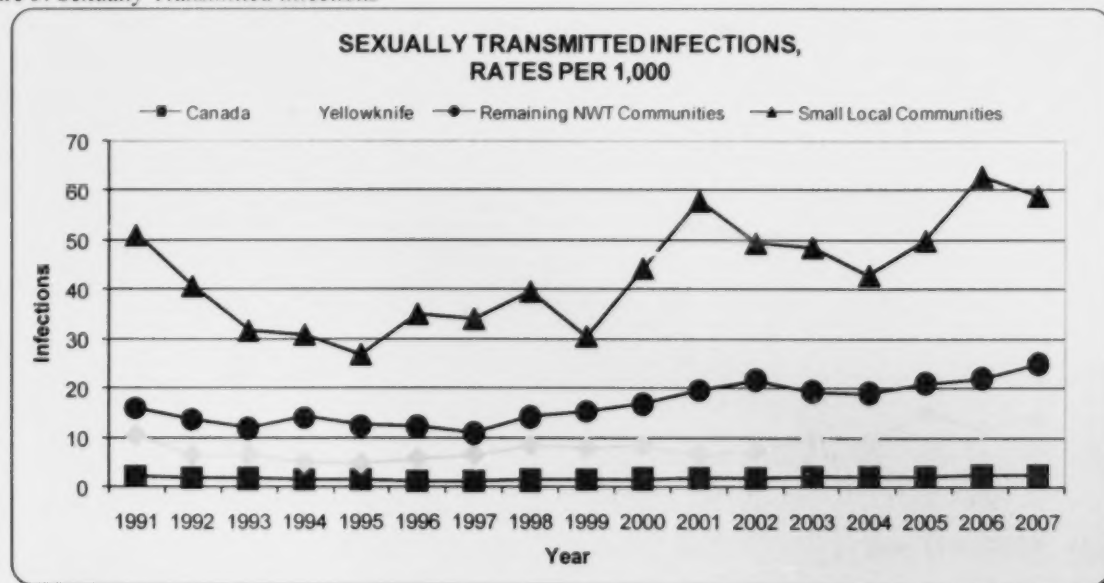
Sexually transmitted infections (STIs) can affect the health and well-being of people living in the North. An STI can also make it hard to have children. Risky actions can increase the chance of getting an STI. This report only includes data on Chlamydia and Gonorrhoea. This is because they are the most reported STIs.⁶

However, beginning in the middle of 2008 there was an outbreak of Syphilis in the NWT. This STI was once thought to be nearly extinct. Three cases were discovered in May 2008, but, by the end of 2008, a total of 53 cases had been confirmed. Before this outbreak, there were only four cases in the past ten years.⁷

1.4.1 Observations

STI rates have gone up in the NWT. This is especially true for youth aged 15-24. Rates are climbing in both Yellowknife and the Small Local Communities, also mostly among youth. Rates in Canada have remained fairly stable.

Figure 5: Sexually Transmitted Infections



Source: NWT Health and Social Services Communicable Disease Registry; NWT Bureau of Statistics; Sexually Transmitted Diseases in Canada: 1996 Surveillance Report; and Public Health Agency of Canada.

⁶ There are many other types of STIs, including Genital Herpes, HIV/AIDS, Human Papillomavirus (HPV), Lymphogranuloma Venereum (LGV) and Syphilis.

⁷ Case numbers include congenital, infectious and non-infectious Syphilis. Syphilis case numbers are from the NWT Department of Health and Social Services, NWT Communicable Disease Registry found in the following departmental publications: *Syphilis Update – To Week Ending January 30, 2009* [2000-2008], *Epi North* Winter 1999/2000, p. 19 [1999] and *Epi North*, Spring 1999, p. 18 [1998].

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	---		
Diavik	↑	↑	↑
De Beers	↑		

1.4.2 Analysis

It is unclear whether the recent outbreak of Syphilis is related to diamond mine activity. However, there has been outbreak of Syphilis in Alberta over the last few years that began in Calgary and Edmonton and then spread into North Alberta.⁸ It is likely that the NWT's own outbreak of Syphilis had its beginnings in Alberta.

The trend of increasing rates of STIs may be related to a shift in public attitudes toward STI prevention, now that HIV/AIDS is no longer regarded as a death sentence. Due to advances in the medical treatment of HIV/AIDS, this STI has come to be viewed as a condition one can live with.

Reduced supervision by parents, as a result of work schedules for mine jobs, may have led to an increase in STIs. Alcohol and drug abuse, as a result of higher incomes from mine jobs, may have also played a role in the increase of STIs.

TUBERCULOSIS

Some groups are more at risk to get tuberculosis (TB), such as immigrants, Aboriginal people, and people infected with HIV. There are few TB cases in the NWT.

Since a TB outbreak can distort numbers from one year to the next, as was the case in the mid-1990s, this Report does not show TB data. Readers can see case numbers in the tables attached to this report.

⁸ Alberta Blood-borne Pathogens and Sexually Transmitted Infections Surveillance Working Group, *Alberta Blood-borne Pathogens and Sexually Transmitted Infections Surveillance Report 2008* (Edmonton, AB: Alberta Health and Wellness, 2008) ch 10 and 11. CBC Northbeat, *CBC News Transcript – Syphilis Outbreak in the NWT*, September 12, 2008, 6:00 p.m.

2 Family & Community Well-being

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 2.

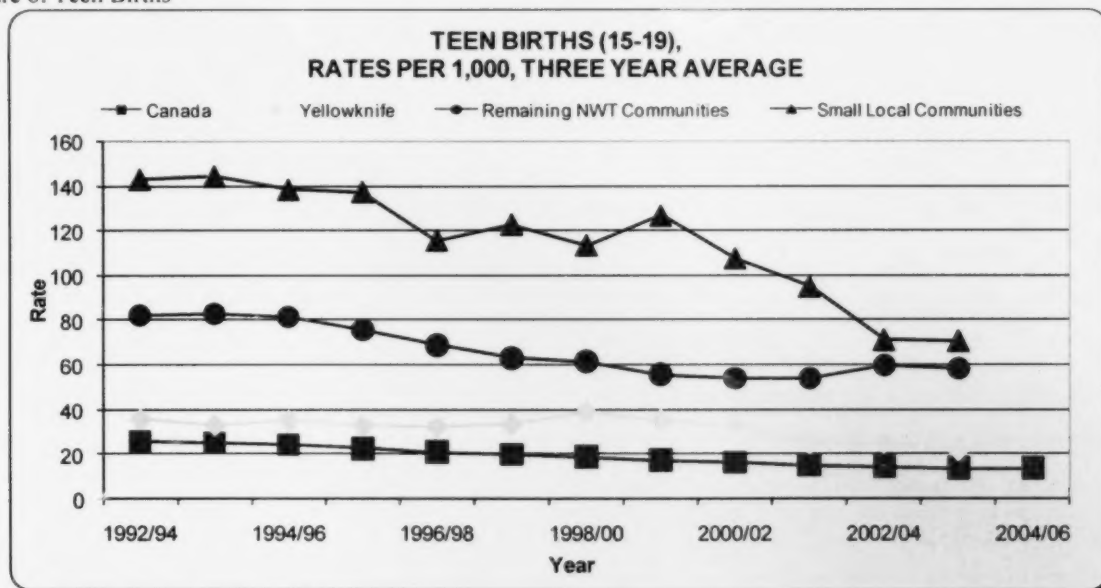
2.1 Teen Births

The teen birth rate is included because employment-induced in-migration and transients can add to unwanted pregnancies.⁹ Teen births may also point to mothers who are under stress due to unplanned pregnancies. Some teen mothers may not be mature enough for the demands of raising a child. Stress and lack of maturity may affect the well-being of both the child and parents in a bad way. In addition, teen parents are more likely to be single parents than older parents are.

2.1.1 Observations

The teen birth rate has dropped across the NWT. It has dropped the most in Small Local Communities. Rates have also been falling in Canada.

Figure 6: Teen Births



Source: Statistics Canada Vital Statistics.

⁹ Diavik SEER, Vol. 7.4.1.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	---		
Diavik	---	↓	↓
De Beers	↑		

2.1.2 Analysis

The decrease in the teen birth rate may be due to a number of factors. More planned parenting, delayed childbirth, or more use of birth control could all lead to a drop in the rate. Another reason could be that more teens are pursuing education. As more teens are able to join the work force upon finishing their schooling, there could be growth in the number of young women working.

A continued drop in the number of teen births will reduce stress on services for teen mothers.

2.2 Single-parent Families

A parent with no spouse or common-law partner living with him or her to help raise their children faces many challenges. These families tend to have lower social and economic status than two-parent families. Stress can be higher in children coming from single-parent families than in those from two-parent families. Single parents often have a more negative view of their own health status.¹⁰

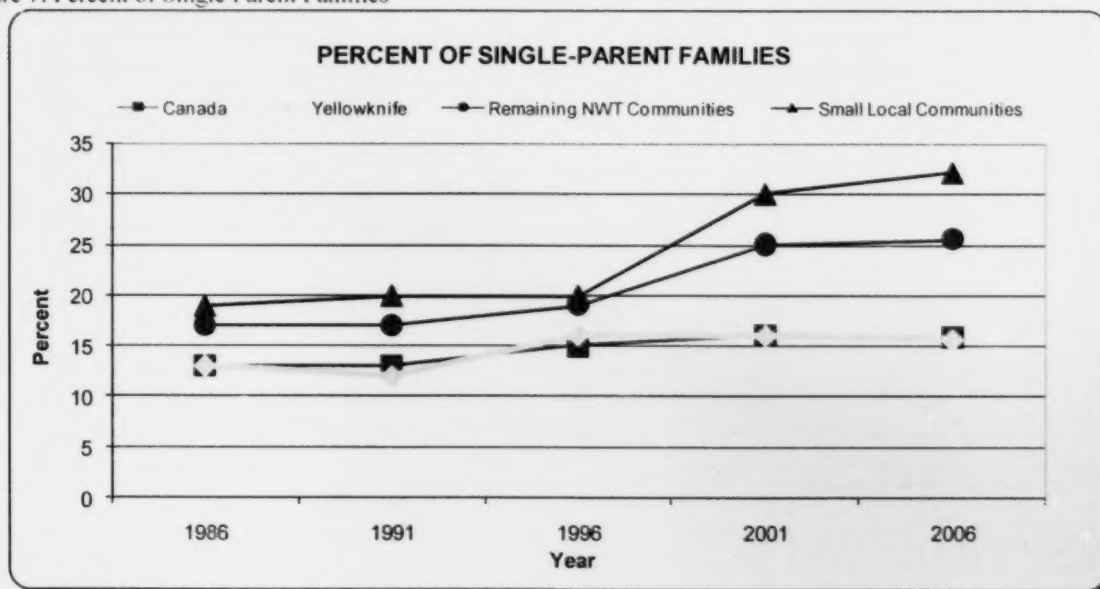
BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 2.1.

2.2.1 Observations

The percent of single-parent families has gone up across Canada and the NWT. In the NWT, the biggest rise in single-parent families was in Small Local Communities. This increase occurred after 1996. In Small Local Communities, the percent of single-parent families went up by about 12 percent, as of 2006. In contrast, in Canada the percent went up by about 1.5 percent. The Yellowknife trend is similar to the Canadian trend.

Families that have one parent are more often low-income households. The percent of children in single-parent families who are in low income families has decreased in Canada and the NWT. The rate has not changed much in the Small Local Communities.

Figure 7: Percent of Single Parent Families



Source: Statistics Canada Census.

¹⁰ NWT Health Status Report, GNWT 1999, page 59.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑		
Diavik	---	↑	---
De Beers	↑		

2.2.2 Analysis

More single-parent families in Small Local Communities points to additional factors at work. These could include rotation schedules or one partner living out of the house in the hope of finding work. Changes in Yellowknife rates seem to reflect general changes in Canadian society.

Having more single-parent families could affect the NWT economy and its ability to grow. This could happen if, for example, parents do not have access to daycare and are unable to work. Single-parent families may also need more services and support.

2.3 Children Receiving Services

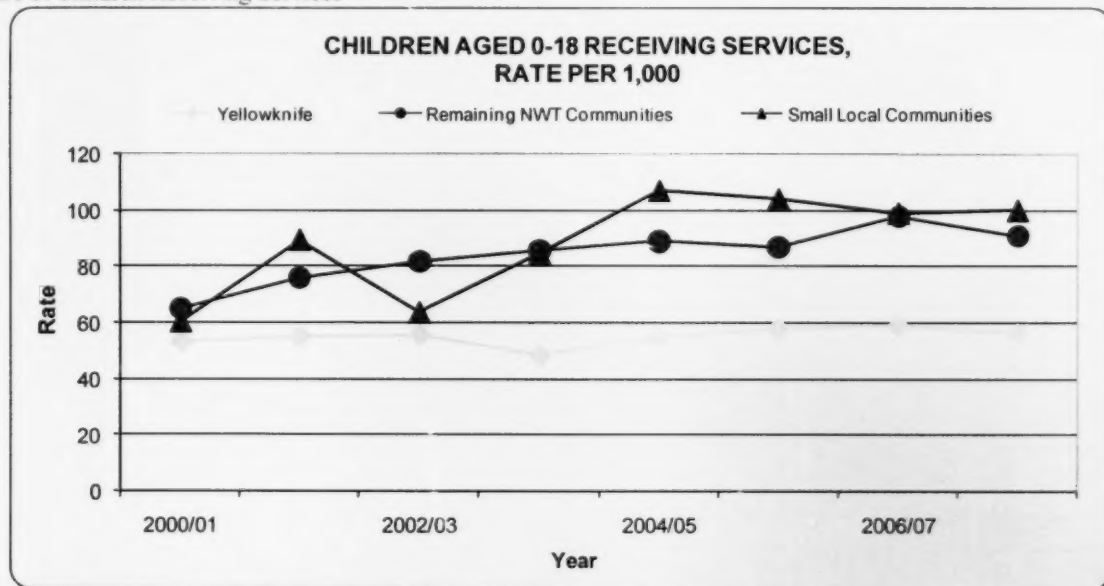
The first six years of life affect how a child will develop into an adult. Children who do not grow up in safe environments are at a disadvantage. Children with problems resulting from parent abuse or neglect are also disadvantaged. The number of children removed from their parents or guardians, or receiving services in their own homes, may be one measure of children at risk.

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 2.2.

2.3.1 Observations

Since 2000/01, rates of children receiving services have gone up in the Small Local Communities and the Remaining NWT communities. In Yellowknife, there has not been any clear change in the rate.

Figure 8: Children Receiving Services



Source: NWT Health and Social Services Child and Family Information System and NWT Bureau of Statistics.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities ¹¹	Yellowknife ¹¹
BHP Billiton	↑		
Diavik	↑	↑	---
De Beers	---		

¹¹ Observed trend begins in 2000/01.

2.3.2 Analysis

In 1998, the *Child and Family Services Act* created a new option for children at risk. Now a child welfare worker can work with the child and the family in the home, to develop a 'plan of care' agreement. An equivalent category to 'a plan of care agreement' did not exist under the previous *Act*. Since the new *Act* came into force, parents have been more inclined to seek services for their children, or family, now that they do not have to automatically give up parental rights. This has resulted in an increase in the number of children receiving services from the 1990s into the 2000s.¹² The vast majority of this increase has been from children who are living at home. And, of these children receiving services in their homes, most service arrangements originated through voluntary agreements as opposed to court orders. Introducing the plan of care option made the number of children receiving services go up. The *Act* came into force in October, 1998.

Because of these legislative changes, trend analysis from before the diamond mines were constructed to today cannot be done.

Changes in staff can also affect the number of children receiving help. Public and staff awareness can affect reporting, as well.

¹² See Table 9.1 in Appendix C: Data Tables.

2.4 Family Violence

While it is clear that family violence is a serious problem in the NWT, getting a complete picture of the actual rates of family violence in Canada or the NWT is difficult. For example, there is no *Criminal Code* offence of family violence or even spousal assault. As a result, counting incidents is difficult. There are also many barriers facing victims, making it difficult for them to safely leave a violent home. Many victims are hesitant to report family violence out of fear and/or loyalty to their family members. Many of those facing such barriers reside in remote communities.

In counting incidents of family violence, the RCMP only records *Criminal Code* offences associated with family violence – such as assault, sexual assault, harassment and stalking – as cases of spousal assault if the victim and offender are known to be spouses. This report examines family violence through data on spousal assault and shelter admissions for women and children. This choice was made because these were the indicators agreed to in the SEAs.

In addition to these indicators, national research tells us that people, particularly women, are abused many times before they report it to the police. Research also reveals that while both men and women experience and commit family violence, women experience more frequent and severe family violence, and aboriginal women are among the most vulnerable to family violence.

Anecdotally, NWT RCMP and shelter workers tell us that women who access shelters are different than women who report violence to the police, and both of these victim groups are different than applicants applying for emergency protection under the *Protection Against Family Violence Act*. With these differences it is difficult to use a single indicator to count family violence.

Most victims of family violence do not seek safety in family violence shelter. Those that do flee to shelters have been victimized many times prior to fleeing. Most NWT communities do not have shelters. This report shows admissions data at the territorial level. The number of women and children using shelters represents a very small number of victims.

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 2.3.

2.4.1 Observations

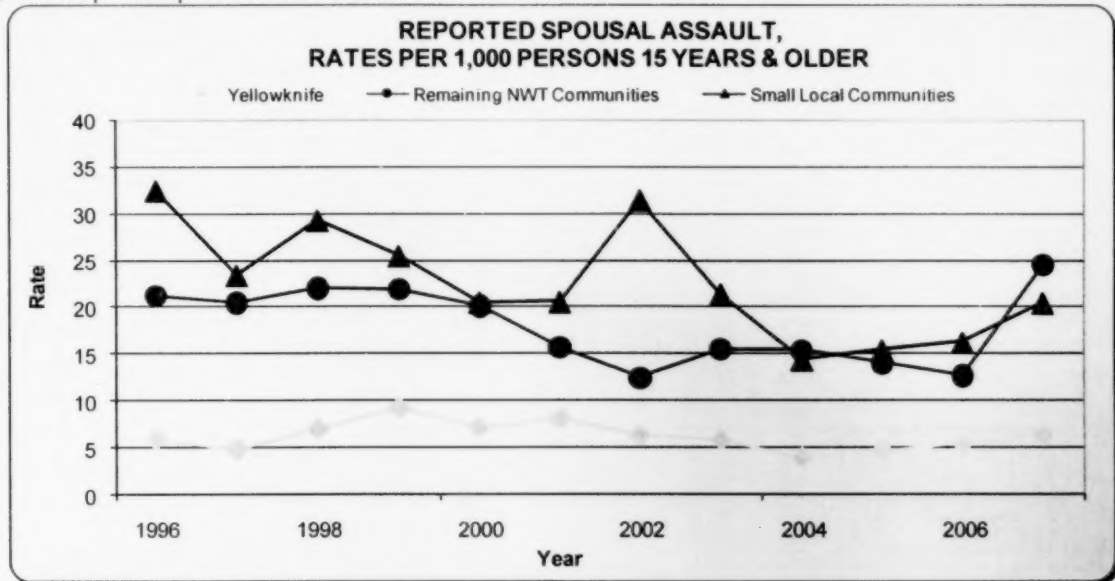
It is difficult to draw any conclusions about family violence based solely on spousal assault rates.¹³ The rates reported in Table 10, in Appendix C: Data Tables, are only a very limited piece of a very complicated picture.

While reported shelter use has fallen, family violence in the NWT is still very high.

¹³ See Table 10 and 10.1 in Appendix C: Data Tables.

Another indicator to consider is the number of Emergency Protection Orders assessed since the *Protection Against Family Violence Act* came into force in April 2005. Since 2005, over 300 Orders have been granted. The majority of applicants are Aboriginal women with children who have suffered from family violence for many years. This *Act* was meant to make it easier for victims to seek protection from abuse and harm. Service providers have indicated that many of the victims accessing protection under this legislation are a group of victims that have not come forward to RCMP or other frontline providers seeking help.

Figure 9: Reported Spousal Assault Rates

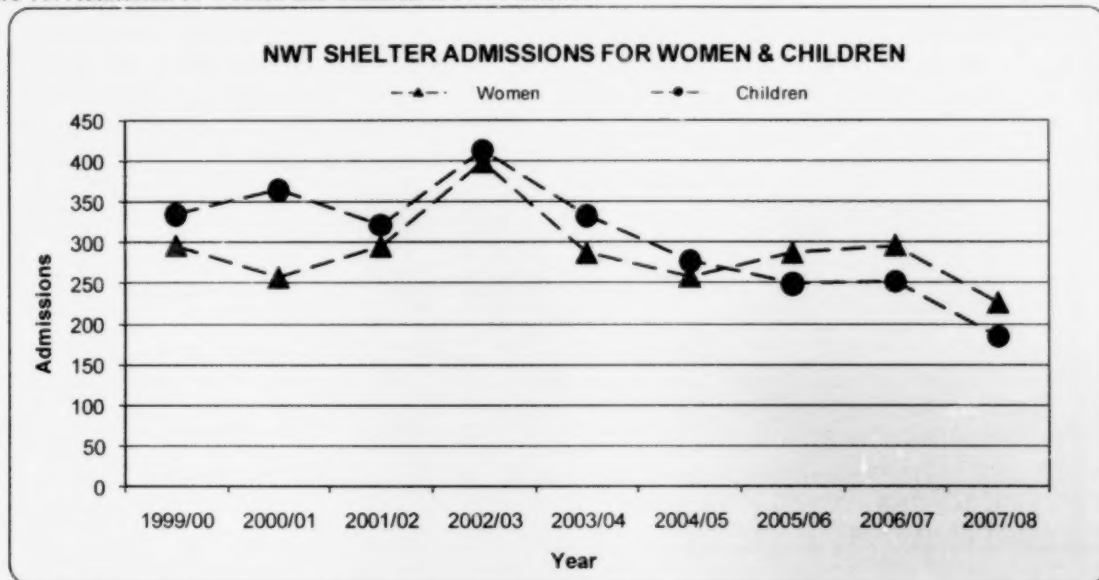


Source: RCMP UCR Statistics System.

Spousal Assault

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑	---	---
Diavik	↑		
De Beers	↑		

Figure 10: Admission of Women and Children to NWT Shelters



Source: NWT Health and Social Services Family Violence Shelter Reports.

2.4.2 Analysis

Although there appears to be a decrease in reported spousal assault in Small Local Communities, it is difficult to confirm this with the level of current information available. As well, any increase or decrease in reporting for this indicator can mean very different things. For example, on the one hand, an increase in reporting may be a result of better social awareness and support for victims. On the other hand, a decline in reporting may reflect an increase in barriers to victims in coming forward to report to police.

A study by Statistics Canada shows that high unemployment, social isolation, alcohol consumption, younger couples and common-law unions may be risk factors for family violence. Many of these factors are more common in the North.¹⁴

Diamond mine activity can bring both opportunities as well as risks. In times of economic uncertainty and job losses, spousal assault may increase due to stress and insecurity. Employment opportunities that bring increased income may bring with them more alcohol and time away from family.

Improved employment options for women can also provide them with more choices. This may make them less vulnerable to family violence. However, successful employment of a victim of family violence may enrage her partner and endanger her well-being even further.

¹⁴ *Family Violence in Canada: A Statistical Profile, 2008*, Statistics Canada, pg. 12.

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3 Crime

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 3.

There are currently no RCMP detachments in Detah, N'dilo, Gamèti and Wekweèti. Detah, N'dilo and Wekweèti are regularly patrolled out of Yellowknife. Gamèti is regularly patrolled out of Behchokò. As a result, there is no separate data for these communities without detachments, but data for these communities is included in the data for the communities they are policed out of.¹⁵

3.1 Total Police-reported Crimes

The crime rate in the NWT is made up of a number of *Criminal Code* offences, including violent, property and Other *Criminal Code* offences. Traffic offences are reported by police but are not included in the crime rate. When there is an incident involving more than one crime, only the most serious crime is reported.¹⁶

3.1.1 Observations

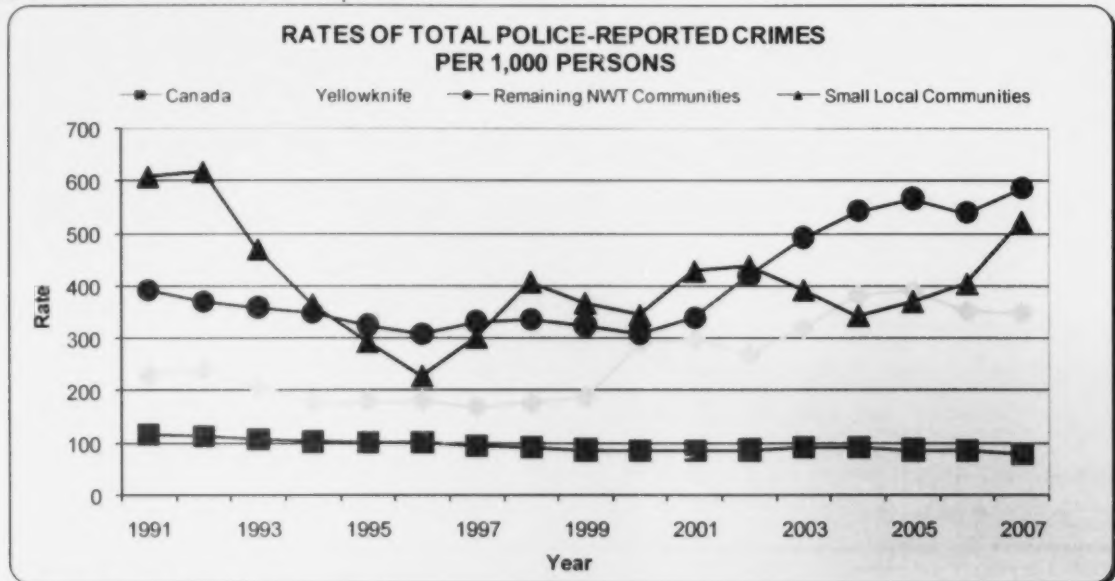
The crime rate in Yellowknife has gone up. This is mostly due to increases in Other *Criminal Code* offences. The rate in Small Local Communities has not reached levels seen before the mines, but has come close. In contrast, crime rates in Canada have been decreasing slowly.

Changes to the youth justice system occurred in 2003, as a result of the introduction of the new *Youth Criminal Justice Act*. As a result, fewer youth have been charged and sentenced to custody. More youth who are in conflict with the law are being dealt with in their communities rather than through the formal justice system.

¹⁵ In 2012, Gamèti will get a RCMP detachment.

¹⁶ This data gives a general look at the number of Criminal Code crimes in the NWT. It does not show changes in the seriousness of crimes being committed.

Figure 11: Number of Total Police-Reported Crimes



Source: RCMP UCR Statistics System.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑		
Diavik	↑	---	↑
De Beers	↑		

3.1.2 Analysis

A change in RCMP reporting between 1999 and 2000 has meant that offences that used to be recorded as territorial offences – mostly *Liquor Act* offences – began to be reported as *Other Criminal Code* offences. These offences mostly include mischief and disturbing the peace. A similar change in RCMP reporting took place between 2000 and 2002 in all other NWT communities. When the change in reporting took place there was an immediate rise in the crime rate in those communities and in the NWT. However, even after the initial impact of the change in reporting, the crime rate continues to be primarily driven by increases in *Other Criminal Code* offences.

In addition to reporting practices, changes in RCMP activities and resources can also influence crime rate data. There are also many other factors that may make the NWT crime rate higher than rates in southern Canada. These include a young population,¹⁷ lower education levels, drug and alcohol abuse and trauma from residential schools.

As with the territory as a whole, the large increase in crime in Yellowknife is being driven mainly by increases in *Other Criminal Code* offences. Increases in offences such as mischief and disturbing the peace are typically linked to abuse of alcohol. This increase may be linked to resource development and higher income.

The RCMP also believes that drug dealers and other organized crime groups have become more active in the NWT. This may be because people have more money from resource development.¹⁸ Increased crime impacts police services and other parts of the justice system.

¹⁷ The territory has a higher proportion of people aged 14-34 than is present in Canada as a whole. Crime is committed most frequently by members of this age group.

¹⁸ RCMP report that in recent years, the key transportation hubs in the NWT, Yellowknife and Hay River, have seen the influence of organized crime groups, as well as the violence that is associated with their criminal activities.

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3.2 Violent Crimes

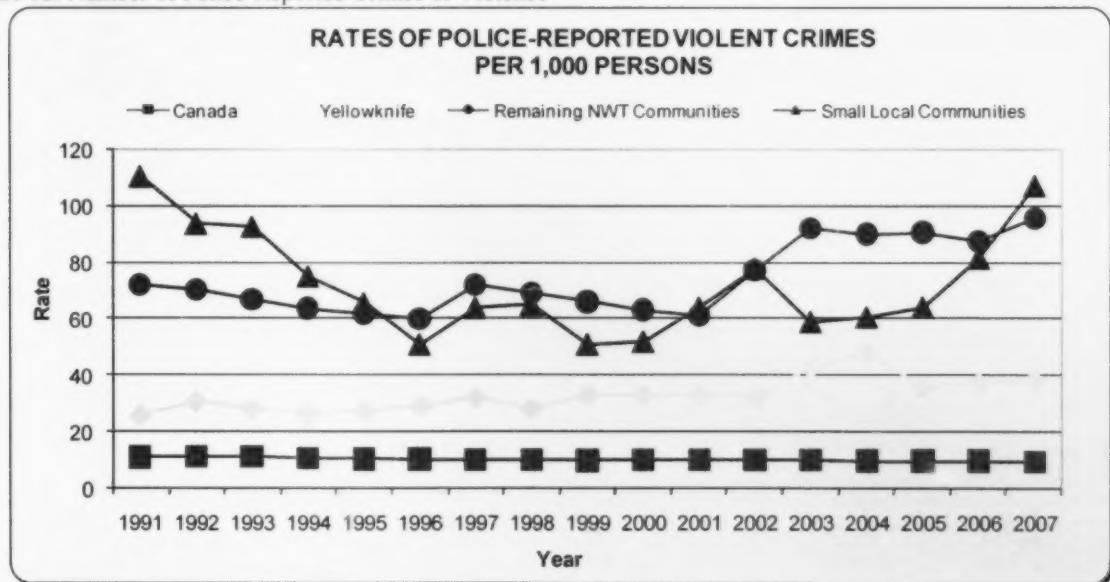
Violent crimes include:

- Homicide;
- Attempted murder;
- Assault;
- Sexual assault;
- Other assaults;
- Other sexual offences;
- Abduction; and
- Robbery.

3.2.1 Observations

The Canadian violent crime rate did not change much between 1991 and 2007. The rate of violent crime in Yellowknife is currently higher than it was in 1996, but the trend is not clear. The rate in Remaining NWT Communities has increased above 1996 levels. Although Small Local Communities saw high rates before the mines, they have been seeing high rates again recently. Overall, it is difficult to tell if there is a difference in pre-1996 versus post 1996-rates in the Small Local Communities. This is because the rate has not exceeded its previous range. However, in 2007, the rate came very close to exceeding a previous high, last seen in 1991.

Figure 12: Number of Police-Reported Crimes of Violence



Source: RCMP UCR Statistics System.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑	---	↑
Diavik	↑		
De Beers	↑		

4.2.2 Analysis

Violent crime in the NWT is often linked to alcohol and drug use. Alcohol plays a large role in the NWT's violent crime. Heavy consumption of alcohol often leads to serious crimes such as assaults, sexual offences and even murders.

Diamond mine employment can provide higher incomes to people. Higher incomes may contribute to increased drug and alcohol abuse. Increased drug and alcohol abuse may lead to more violent crime. However, low incomes and a lack of employment opportunities may also lead to family breakdown and violence.

Increased violent crime could result in the need for different and possibly more resources for policing and corrections. In the NWT, the majority of male offenders in jail have been convicted of violent crimes. Violent crime can also lead to a need for more shelters, social workers and health and community well-being services. Injuries from violent crime may lower people's ability to work.

¹⁹ Violent crime has not exceeded levels seen before the mines. But it has come very close. Further evidence may be needed to see whether high violent crime rates may be linked to mine employment.

3.3 Property Crimes

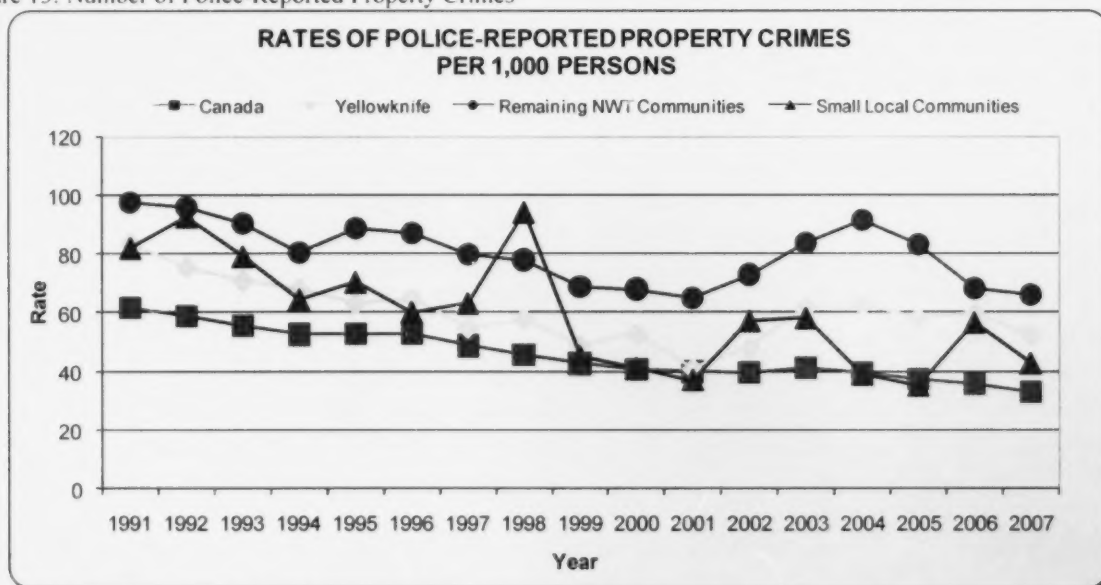
Property crimes that are most often reported are:

- Non-violent theft;
- Breaking and entering;
- Fraud; and
- Possession of stolen goods.

3.3.1 Observations

Property crime rates have been dropping in Canada and across the NWT. Rates for NWT communities have gone up and down more than the Canadian rate has. This may be the result of smaller population sizes in NWT communities. The larger population at the Canadian level flattens out the trend seen for Canada.

Figure 13: Number of Police-Reported Property Crimes



Source: RCMP UCR Statistics System.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑	↓	↓
Diavik	↑		
De Beers	↑		

3.3.2 Analysis

Property crime is the one area where rates in the NWT are similar to those of Canada generally. Property crime rates in Yellowknife, Small Local Communities and Remaining NWT Communities appear to be going down. This trend began before the mines were developed. This trend has since continued, with some fluctuation.

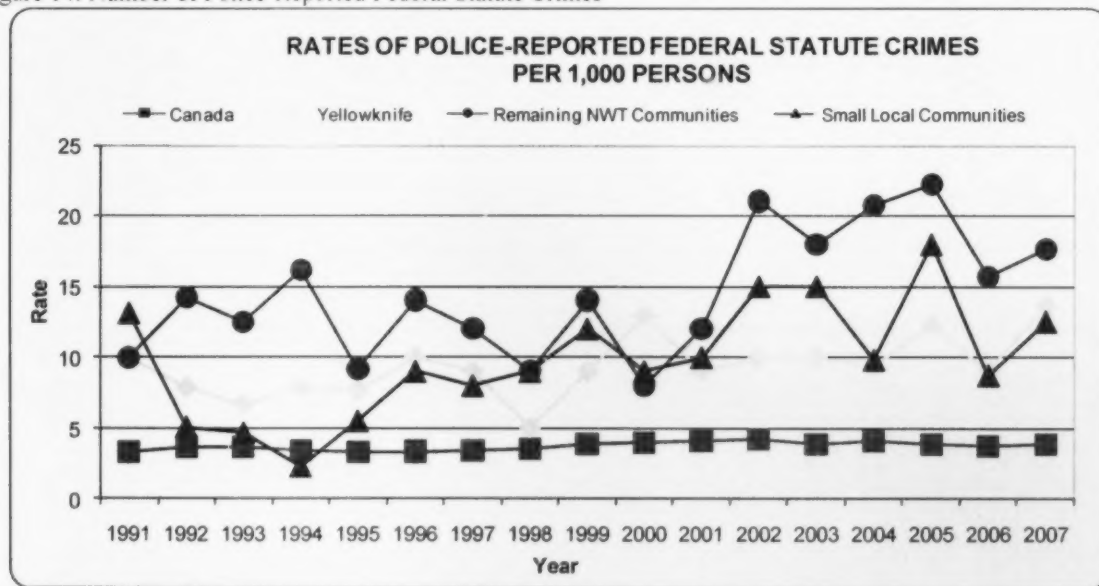
3.4 Federal Statute Crimes

Federal statute crimes include drug-related offences under the *Controlled Drugs and Substances Act*. Any rise will most likely be due to more drug activity.

3.4.1 Observations

Rates have not changed much in Canada. NWT rates are typically up over pre-1996 levels. Rates have been going up much faster in the NWT than in Canada. In the NWT, rates have fluctuated most in Remaining NWT Communities and Small Local Communities.

Figure 14: Number of Police-Reported Federal Statute Crimes



Source: RCMP UCR Statistics System.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑		
Diavik	↑	↑	
De Beers	↑		↑

3.4.2 Analysis

Higher reported federal statute crime may be due to more pro-active police enforcement. There could also be more drug activity because of higher incomes due to mine-related jobs. The RCMP has noted that as cash becomes more available, so does the money spent on drugs. When community incomes increase, so can the presence of drug dealers, drugs and organized crime.

The RCMP confirms that the main drugs in use in the NWT are marijuana and cocaine. This includes crack cocaine.

The GNWT has met with communities. At these meetings, concerns were shared about rising drug use, mainly by youth.

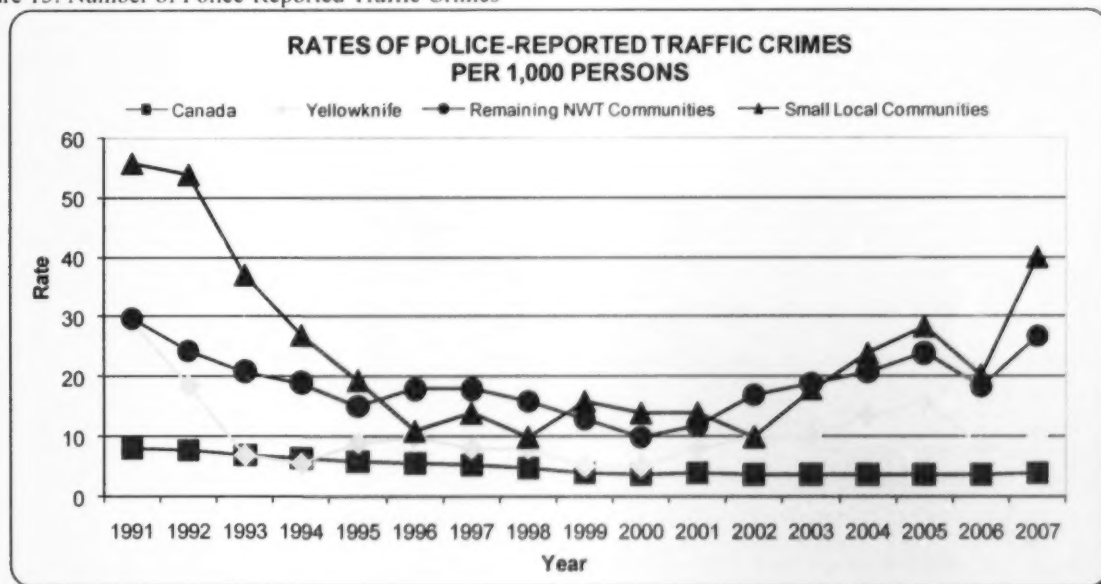
3.5 Other Crimes -Traffic Offences

Traffic crime covers impaired driving, failure to stay at the scene of an accident, and dangerous driving.

3.5.1 Observations

The trend for traffic crime in the NWT is unclear. Rates appear to have gone down overall, but may be picking up recently. However, rates have not reached levels seen before the mines. Overall rates are lower even though vehicle traffic, resource activity, population and alcohol use all rose.

Figure 15: Number of Police-Reported Traffic Crimes



Source: RCMP UCR Statistics System.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	---	---	---
Diavik	↑	---	---
De Beers	---	---	---

²⁰ Overall, traffic crime is down in these communities. But it may be starting to increase. As a result, it is difficult to tell what the trends are.

3.5.2 Analysis

Data does not show any major influence on traffic crime from the mining industry. The data does not show the number of accidents or how severe they are.

3.6 Other *Criminal Code* Offences

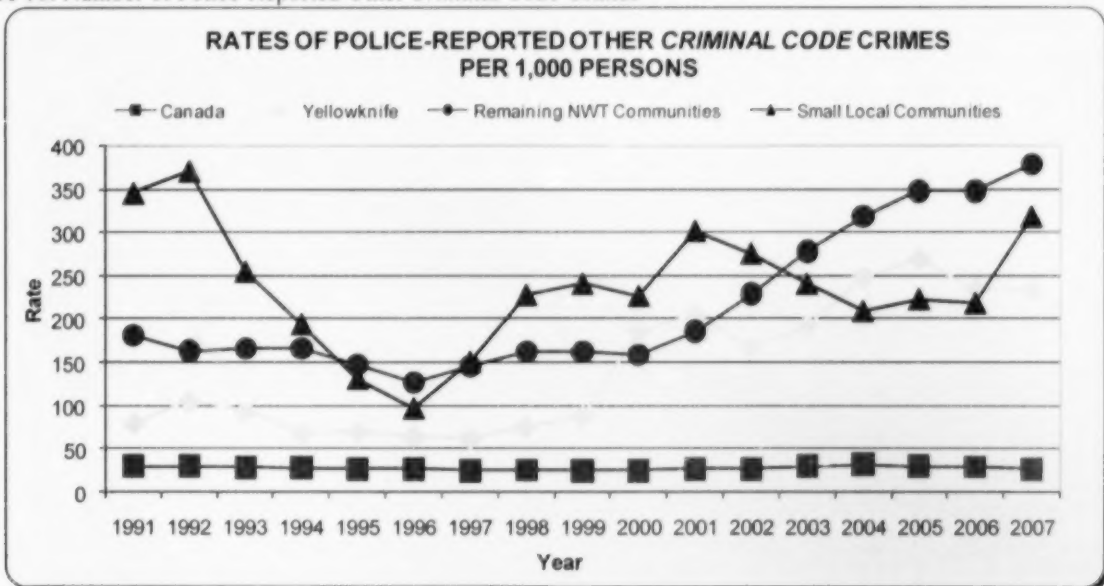
Other *Criminal Code* offences include:

- Mischief;
- Probation or bail violations;
- Prostitution;
- Illegal gambling; and
- Arson.

3.6.1 Observations

Since 1991, rates of Other *Criminal Code* crimes have nearly tripled in Yellowknife and the Remaining NWT Communities. As was mentioned in the analysis in section 3.1, Total Police-reported Crimes, the increase in the crime rate in the NWT is mostly due to increases in Other *Criminal Code* offences. In Small Local Communities, the rate has started to climb recently, but has stayed within its range from before the mines. Rates across the NWT are much higher than in Canada.

Figure 16: Number of Police-Reported Other *Criminal Code* Crimes



Source: RCMP UCR Statistics System.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑		
Diavik	↑	--- ²¹	↑
De Beers	↑		

3.6.2 Analysis

There was a marked increase in Other *Criminal Code* offences between 1999 and 2000 in Yellowknife. Much of this increase was due to a change in RCMP reporting at that time. A similar change in reporting happened between 2000 and 2002 in the rest of the NWT. Some crimes that used to be territorial offences (*Liquor Act* offences) are now recorded as Other *Criminal Code* crimes (such as mischief or disturbing the peace). Increases in Other *Criminal Code* offences explains much but not all of the rise in the total crime rate.

Most of the real increase in Other *Criminal Code* crimes is related to alcohol. The Yellowknife trend may be caused by more income or by in-migration. These may be linked to diamond and other resource activity. Other social issues may have also increased the rate of Other *Criminal Code* offences.

²¹ Rates have not exceeded levels seen before the mines. But they have come very close. Further evidence may be needed to see whether high rates may be linked to mine employment.

4 Housing

There are a few types of housing issues that are most often linked with resource development. These include: the number of people who own a home; the number of people who need to share a house; and people's ability to maintain their home. Changes in the number of rental units also can affect the quality of housing.

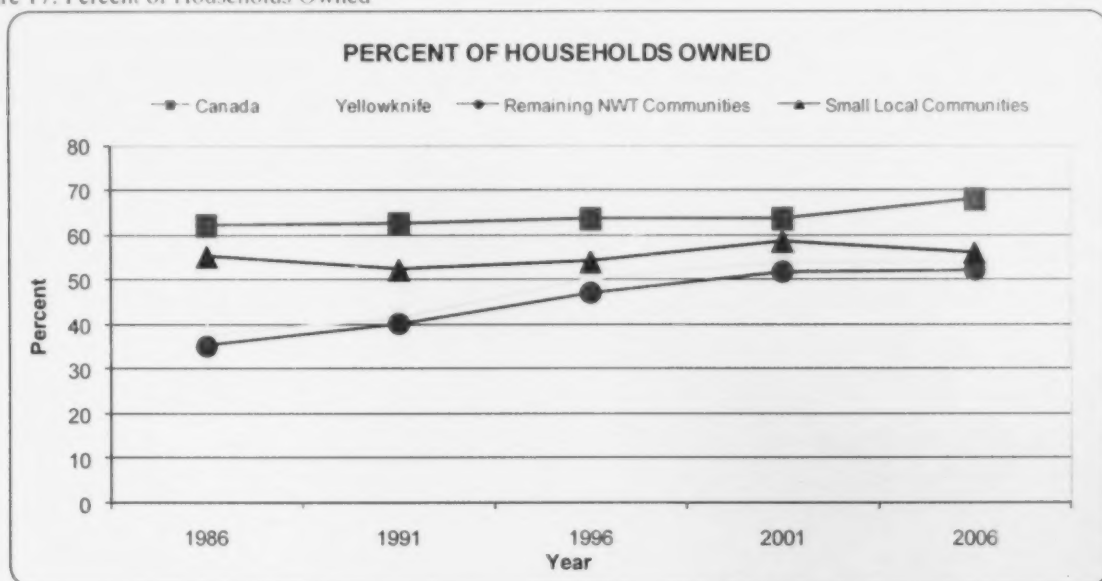
BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 4.

4.1 Ownership

4.1.1 Observations

The rate of homeownership in Small Local Communities has not changed much. Rates in Yellowknife and Remaining NWT Communities have climbed. Rates have been climbing less sharply since 1996.

Figure 17: Percent of Households Owned



Source: NWT Housing Needs Survey, NWT Community Survey and Statistics Canada Census.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑		
Diavik	↑	---	↑
De Beers	↑		

4.1.2 Analysis

The slowing growth of ownership in Yellowknife could be linked to a rise in housing prices. This would be an expected result of in-migration from development.

In Small Local Communities, there is no change in ownership. Therefore, the positive impact predicted has been muted.

Higher incomes do not seem to have led to more ownership. Many families may have already turned to GNWT homeownership programs. This may mean that their spending priorities have been focused on other areas.

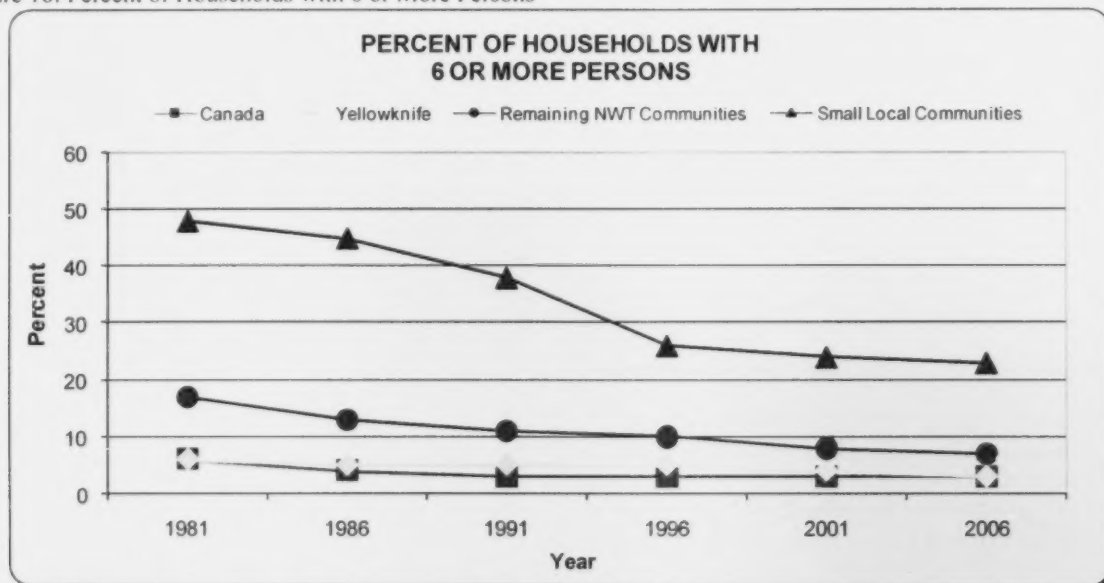
Owning a home should lead to improved security. This is most important when people reach retirement.

4.2 Crowding

4.2.1 Observations

Rates are dropping in the NWT. This is especially true in Small Local Communities, although rates are still highest in those communities. Rates are lowest in Canada and Yellowknife.

Figure 18: Percent of Households with 6 or More Persons



Source: NWT Housing Needs Survey, NWT Community Survey and Statistics Canada Census.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↓		
Diavik	↓	↓	
De Beers	↓		↓

4.2.2 Analysis

Family and household structures are changing a lot across the NWT and the rest of Canada. In the last 10 years, the number of households has grown faster than population in all regions of Canada. People have been expecting and demanding more 'living space' at home. They are forming more households, with fewer members. Values, expectations, availability, and income shape both the demand and supply of housing.

The diamond projects have not had the positive impact on housing that was expected. In Yellowknife and Small Local Communities, crowding was expected to drop further. The lack of suitable housing may have made the drop smaller than expected. In- and intra-migration may have added pressure to the limited supply of housing. Price rises, especially in Yellowknife, may also be a factor.

A drop in crowding should mean improved standards of living. It could also mean changes to family and social structure, and social interaction.

4.3 Core Need

A household is in core need if it has any housing problems (suitability, adequacy, or cost). A household is also in core need if the total household income is below the community Core Need Income Threshold. Housing is 'affordable' when a household pays no more than 30 percent of its gross income for shelter. The NWT Housing Corporation uses the Threshold to show the income a household must have to own and operate a home or rent in the private market without government help.

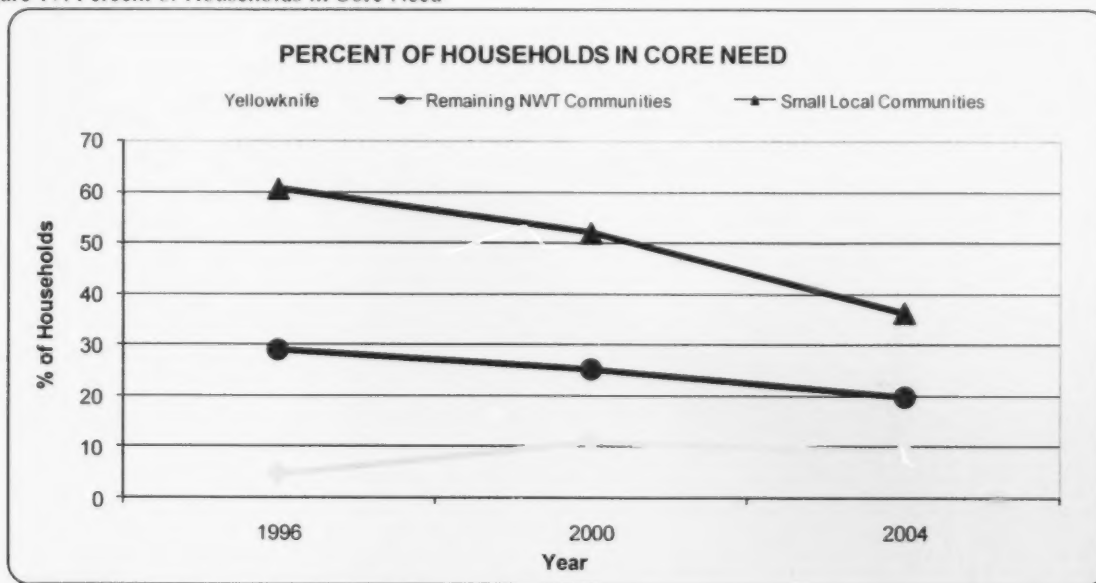
When incomes rise, the number of households in core need decreases. On the other hand, when housing prices go up, the number of households in core need also increases.

4.3.1 Observations

The percent of households in core need went down in all communities except Yellowknife. There has been more of a drop in core need in Small Local Communities than in Remaining NWT Communities. Core need is still much lower in Yellowknife than in Small Local Communities and Remaining NWT Communities. It has dropped in Small Local Communities by about 25 percent. But, it is still very high, at just under 40 percent.

In the NWT, the percent of owned homes in core need has dropped.²²

Figure 19: Percent of Households in Core Need



Source: NWT Housing Needs Survey and NWT Community Survey.

²² See Table 20 in Appendix C: Data Tables.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↓		
Diavik	↓	↓	↑
De Beers	↓		

4.3.2 Analysis

Many factors can explain the drop in core need in Small Local Communities:

- Improvements in housing stock, mostly because of Northwest Territories Housing Corporation programs; and
- An increase in household income resulting from the mining industry. This adds to residents' ability to care for their own shelter costs.

The main reason core need went up in Yellowknife was because inflation has increased housing costs.

The main housing problem in Yellowknife is cost. In the rest of the NWT, suitability or adequacy is the largest problem.

A drop in core need means more households are able to make it on their own (without the aid of income assistance programs). This should bring improved standards of living. A rise in core needs could mean more people having a lower standard of living and could result in continued or greater need for social services.

4.4 Vacancies

4.4.1 Observations

The Yellowknife vacancy rate has dropped in the last two years. Yellowknife's vacancy rate is lower than the Canadian average.²³ The Yellowknife apartment vacancy rate was:

- 0.3 percent in 2002;
- 1.7 percent in 2003;
- 3.0 percent in 2004;
- 3.3 percent in 2005;
- 3.3 percent in 2006;
- 1.2 percent in 2007; and
- 0.9 percent in 2008.²⁴

4.4.2 Analysis

2008 is the second consecutive year of decline in Yellowknife's vacancy rate. Its low vacancy rate could be a result of:

- High costs of materials;
- Labour shortages related to development; and
- Housing prices going up because people are moving here for the diamond projects.

Canadian vacancy rates have gone up because new rental units have been built. This does not happen as often in the NWT because of the high cost of building. The high cost may be due to a lack of skilled people and materials. It can be harder to find affordable housing when new units are not being built. It is very hard to find larger affordable housing (three or more bedrooms). There were not many apartments built in 2007. So, the vacancy rate is likely to stay low in the near future.

The lack of places to stay in Yellowknife may lead to more crowding there and in other communities. Low vacancy rates can lead to lower migration into and within the NWT. This may limit the NWT economy.

²³ CMHC 2008 Rental Market Report.

²⁴ Ibid.

**CULTURAL WELL-BEING
& TRADITIONAL ECONOMY**

5 Cultural Well-being & Traditional Economy

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 5.

5.1 Home-language use to Mother Tongue

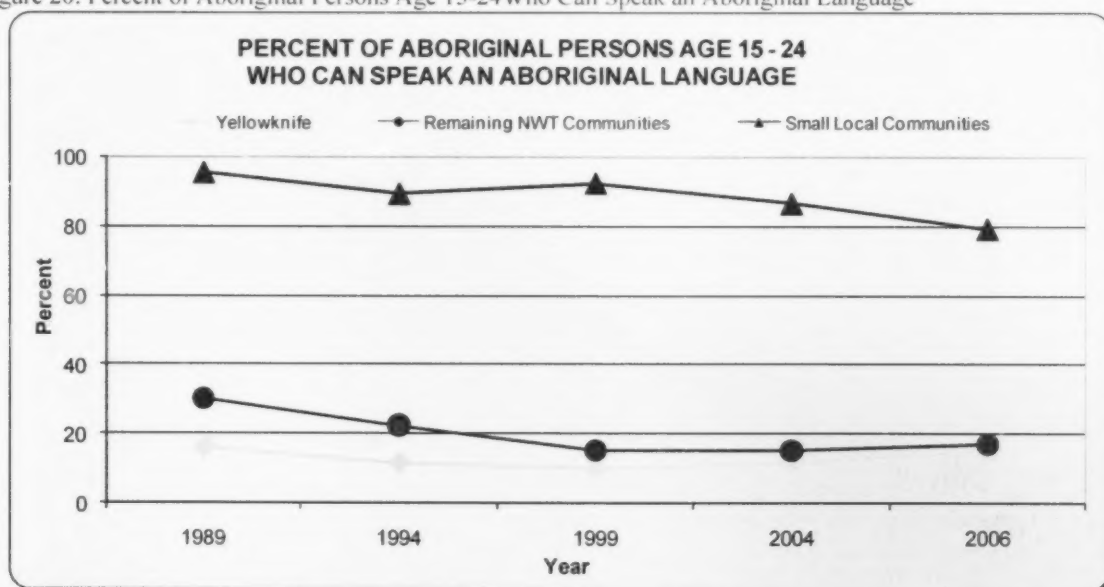
Language is a way to transmit culture from one generation to another. It allows members of a culture to communicate and make sense of their shared experiences.²⁵

5.1.1 Observations

The percent of people who speak an Aboriginal language is falling in the NWT. This trend is particularly true of people age 15-24. Within the NWT, rates remain the highest in the Small Local Communities. However, rates have fallen sharply in those communities.

In 2006, 20 percent of people in the NWT had a first language other than English or French. The majority of these people had an Aboriginal language as their mother tongue.²⁶

Figure 20: Percent of Aboriginal Persons Age 15-24 Who Can Speak an Aboriginal Language²⁷



Source: NWT Labour Force Survey and NWT Community Survey.

²⁵ Royal Commission on Aboriginal Peoples, Volume 3, 'Gathering Strength.'

²⁶ 2006 Statistics Canada Census.

²⁷ Due to the different timing of the surveys from which the data shown above was gathered, the data points are not shown at evenly spaced intervals. Between the 1989 Labour Force Survey and the 1991 Census, there are two years between the data points. But between the 1991 Census and the next Labour Force Survey, 1994, there are only two years between the data points. However, this pattern of intervals remains consistent for all the data points shown above.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↓		
Diavik	↓	↓	
De Beers	↓		↓

5.1.2 Analysis

The increase in Aboriginal language use in Yellowknife since 1999 may be a result of more people moving there from other NWT communities.

Loss of language has an impact on keeping and passing on Aboriginal culture, heritage and traditions. Language is a key way to transfer such knowledge.

5.2 Workforce-aged Group Engaged in Traditional Activities

Traditional activities include cultural activities such as:

- Hunting;
- Trapping;
- Fishing;
- Harvesting;
- Sewing; and
- Eating country food.

These activities let people use traditional skills and knowledge. This provides cultural and social benefits.

5.2.1 Observations

In Yellowknife, the percent of people trapping is low and has not changed. In 2003, no Métis from the Yellowknife area engaged in trapping. Many people outside Yellowknife do some form of trapping. Trapping is mostly important in Small Local Communities. Trapping has gone up in those communities lately.

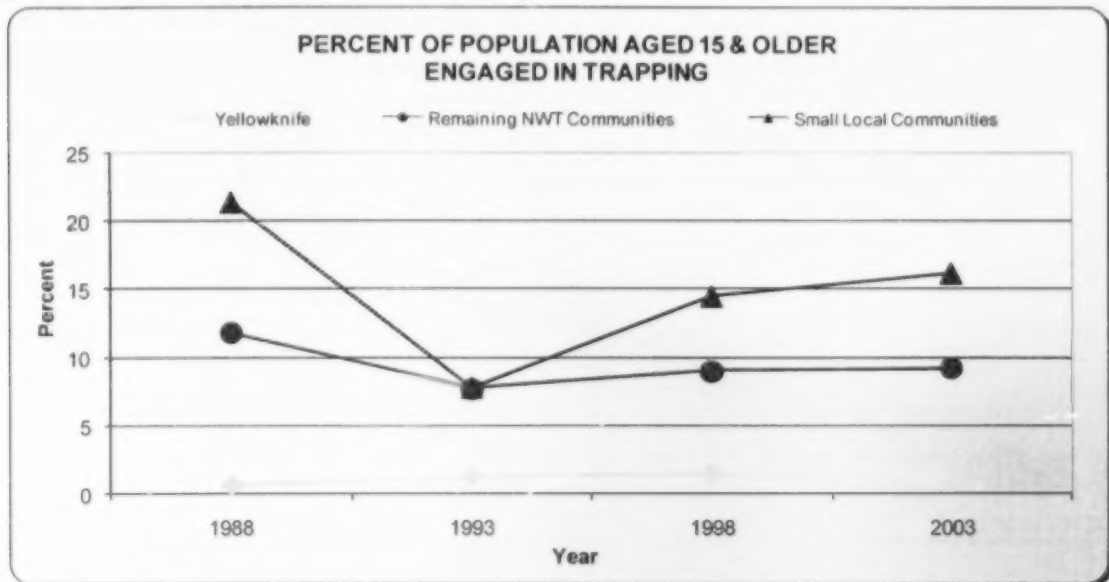
In Yellowknife, between 1998 and 2003, the number of people over the age of 15 who hunted or fished, went down. However, Small Local Communities saw a slight increase during that time.

In 2003, almost 29 percent of Métis from the Yellowknife area hunted and fished. However, this rate is about 8 percent lower than the NWT average and around 15 percent lower than the rates for Remaining NWT Communities and Small Local Communities.²⁸

Trends in the percent of households where half or more of the meat or fish eaten is harvested fall within the normal range of change.

²⁸ See Table 23 in Appendix C: Data Tables.

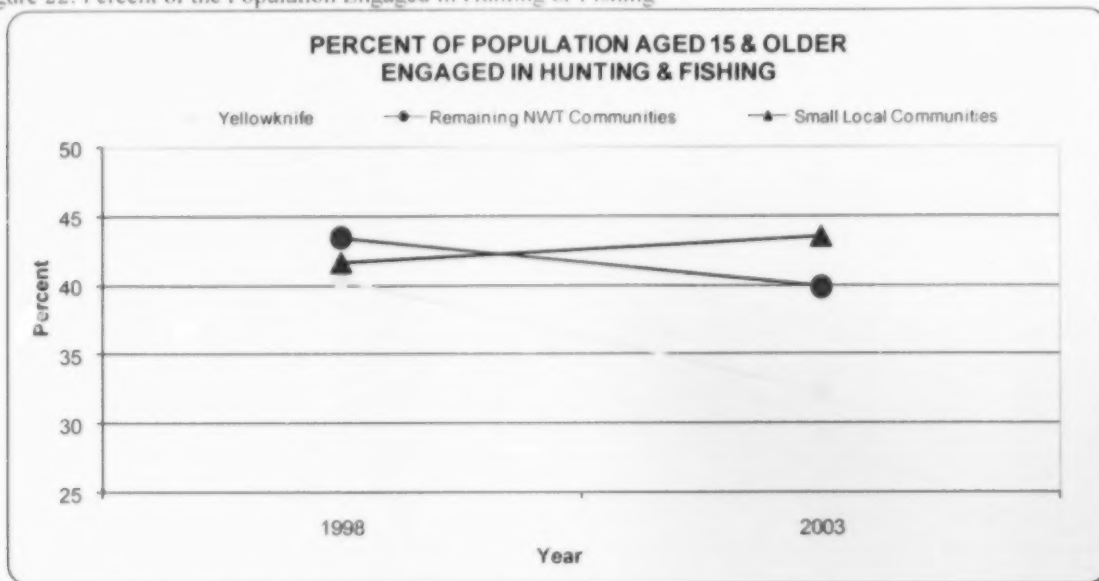
Figure 21: Percent of Population Engaged in Trapping



Source: NWT Labour Force Survey and NWT Community Survey.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↓		
Diavik	↓	↑	---
De Beers	---		

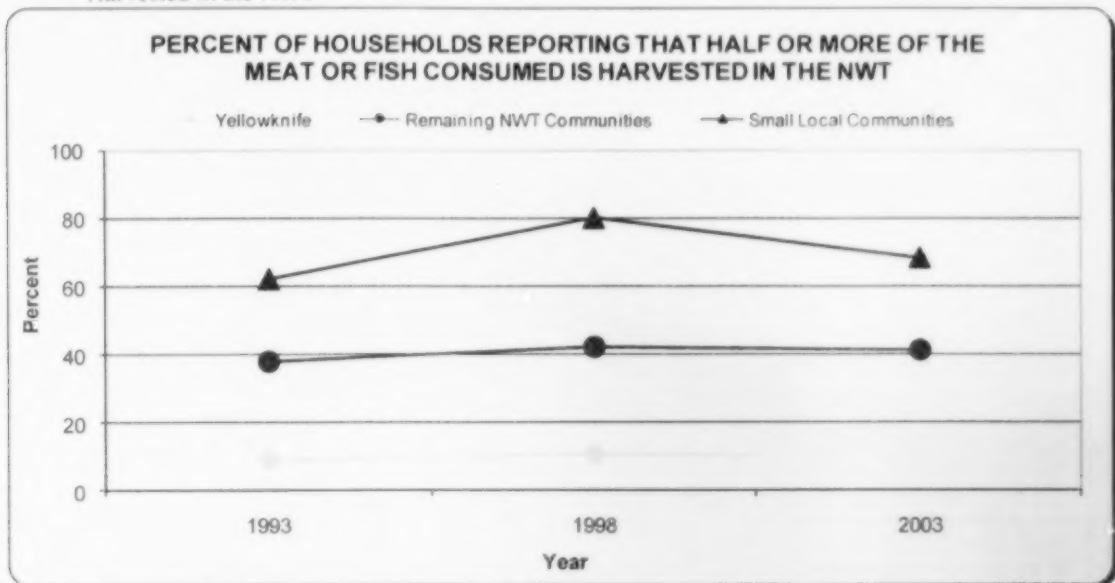
Figure 22: Percent of the Population Engaged in Hunting or Fishing



Source: NWT Labour Force Survey and NWT Community Survey.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↓		
Diavik	↑	↑	↓
De Beers	---		

Figure 23: Percent of Households Where Half or More of the Meat or Fish Consumed is Harvested in the NWT



Source: NWT Labour Force Survey and NWT Community Survey.

5.2.2 Analysis

Trapping has been going up in Small Local Communities for some time. It has continued to go up since the mines started. This could be linked to the mines through higher incomes and rotational work schedules.

More trapping in Small Local Communities could strengthen the passing down of traditional knowledge. Passing down this knowledge can strengthen cultural well-being. It can help communities to be more vital.

More hunting and fishing in Small Local Communities could be due to more income and the rotational work schedule. There is a constant rise in hunting and fishing in Small Local Communities. This could strengthen cultural well-being and community vitality.

There seems to be no link between trends in the country foods eaten and the diamond mines.

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NON-TRADITIONAL ECONOMY

6 Income & Employment

6.1 Average Income

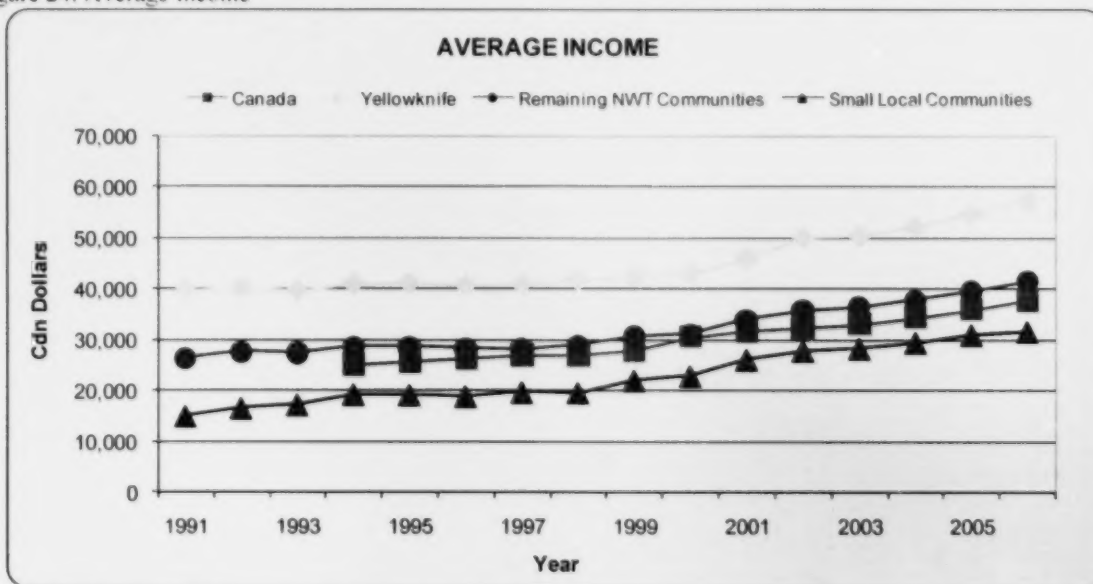
The data here comes from income tax returns. The more people are paid, the higher average income is. Total employment income goes up as wages rise and as more people are working.

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 6.1.

6.1.1 Observations

Average income in the NWT has been going up for some time. Since 1997, it has gone up sharply. Since then, income has grown faster in the NWT than in Canada. The largest increases have been seen in Yellowknife and the Small Local Communities. In Yellowknife, average income jumped again in 2002. However, average income is still lower in Small Local Communities.

Figure 24: Average Income



Source: Statistics Canada.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑		
Diavik	↑	↑	
De Beers	↑		↑

6.1.2 Analysis

The steady rise in average income may be a result of diamond mine development and government restructuring during the mid-1990s.

An increase in average income has led to a decrease in the number of income assistance cases. It has also led to a higher standard of living.

6.2 Proportion of High-income Earners (Wage Disparity)

A growing gap between high- and low-income earners can lead to imbalances in society. Close monitoring helps efforts to correct imbalances in the NWT.

Wage disparity is measured by calculating the proportion of high- and middle-income earners. If these two groups are growing, we can see that there are fewer low-income earners. This means that the gap between high- and low-income earners is shrinking.²⁹

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 6.2.

6.2.1 Observations

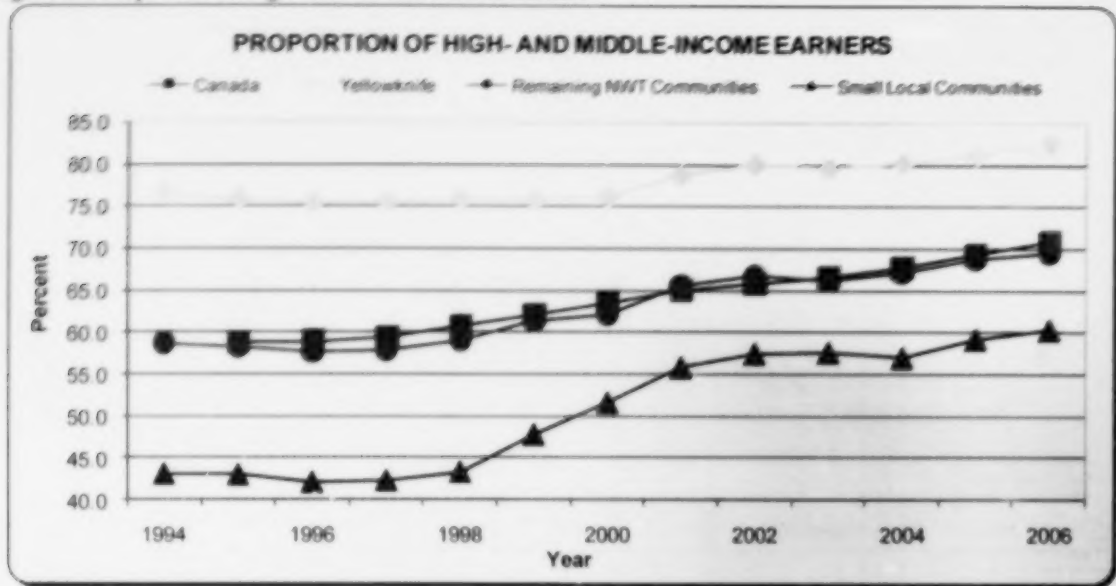
The proportion of high- and middle-income earners has gone up in Canada and across the NWT. The percent of low-income earners has declined proportionally. Small Local Communities have seen the most improvement in wage disparity.

This trend in the NWT seems to have picked up around 1998 and 1999. It slowed for a bit, between 2002 and 2004, and recently started picking up again.

The proportion of high- and middle-income earners is lower in Small Local Communities than in Canada, Yellowknife and Remaining NWT Communities. But, the gap between the proportion of high- and middle-income earners in Small Local Communities and other NWT communities has grown a lot smaller.

²⁹ A UN report, *Indicators of Sustainable Development: Guidelines and Methodologies*, Third Edition (New York: United Nations, 2007): 48, states that a similar indicator, the 'ratio of share in national income of highest to lowest quintile,' is meant to show if income distribution within a country or region is unequal. Large income inequality can hold back human development and long-term economic growth.

Figure 25: Proportion of High- and Middle-Income Earners



Source: Statistics Canada.

Wage Disparity

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑	↓	↓
Diavik	↑		
De Beers	↑		

6.2.2 Analysis

There were concerns during environmental assessments that diamond mine development would lead to more inequality in income levels. This does not seem to have happened. There are now more people in the upper- and middle-income range in all NWT communities. The shrinking gap between Small Local Communities and other NWT communities, including Yellowknife, may be a positive result of diamond mine development.

6.3 Income Assistance Cases

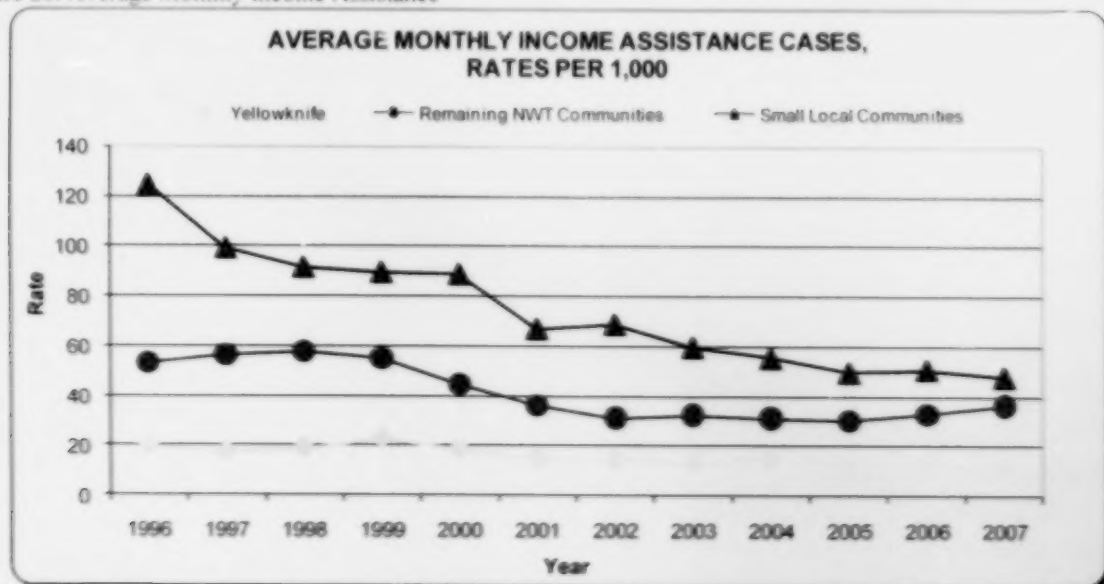
Case data comes from the average number of households receiving assistance each month.

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 6.3.

6.3.1 Observations

The income assistance case rate has gone down in Yellowknife. It has dropped in Small Local Communities by more than 50 percent. This drop has been greater in these communities than in the rest of the NWT.

Figure 26: Average Monthly Income Assistance



Source: NWT Education, Culture and Employment and NWT Bureau of Statistics.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↓		
Diavik	↓	↓	
De Beers	↓		↓

6.3.2 Analysis

Due to program changes in 2007, it is difficult to compare recent data with data from before 2007. Recent changes in the data may reflect policy changes more than real changes. The drop in income assistance cases between 1996 and 1997 was a result of policy changes. The decrease in NWT income assistance cases since 1997 may be a result of better employment opportunities related to the mining industry. Other factors may include seasonal employment, changes in the cost of living, the number of household dependants and money management practices. In-migration of people without jobs to Yellowknife may have stopped the rate there from dropping more.

6.4 Employment Rate

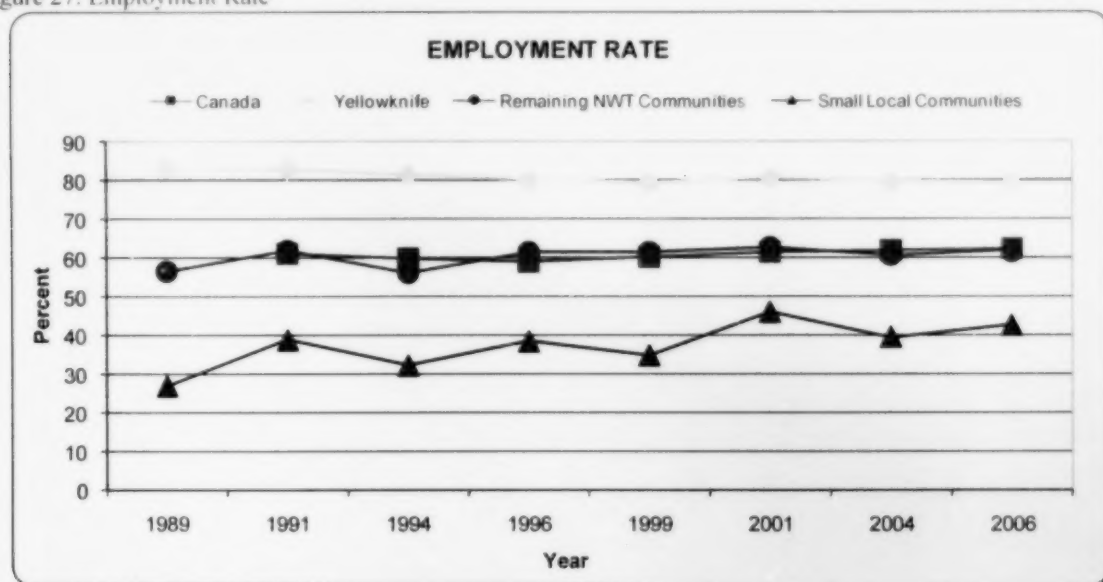
BHP, Diavik and De Beers predicted certain trends in their EARS. What they said can be found in Appendix A, Section 6.4.

6.4.1 Observations

The employment rate in Yellowknife has dropped. The employment rate for the Métis from the Yellowknife area has gone up. It is higher than the NWT rate, but lower than the Yellowknife rate. It is much higher than the rate in Small Local Communities.³⁰ The employment rate in Small Local Communities has been increasing.

The percent of working-aged people who work for more than 6 months each year has gone up across the NWT. However, it has gone up the most in the Small Local Communities. The employment rate in Small Local Communities is still much lower than the Canadian and NWT rates.

Figure 27: Employment Rate³¹



Source: Statistics Canada Census, NWT Labour Force Survey and NWT Community Survey.

³⁰ See Table 28 in Appendix C: Data Tables.

³¹ Due to the different timing of the surveys from which the data shown above was gathered, the data points are not shown at evenly spaced intervals. However, the interval pattern is consistent: 2 years; 3 years; 2 years; 3 years; 2 years; 3 years; etc. For explanation, see note 27 above.

Comparisons between the Labour Force Survey completed by the NWT Bureau of Statistics and the Census completed by Statistics Canada should be done with caution. Census indicators are often higher due to seasonal employment activities.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑		
Diavik	↑	↑	↓
De Beers	↑		

6.4.2 Analysis

A major factor in the increase in the employment rate in the Small Local Communities is the diamond mines.

The Department of Education, Culture and Employment has been working with other departments and industry to develop apprenticeship and mine-related training programs for NWT residents. Greater access to culturally-fitting education and training may make it easier for NWT residents to find employment and remain in their communities.

Overall, employment rates across the NWT have shown some improvement over the last 15 years. There are still strong regional differences in employment activity. The employment rate in Yellowknife is over 20 percent higher than in other regions of the NWT.

6.5 Unemployment Rate

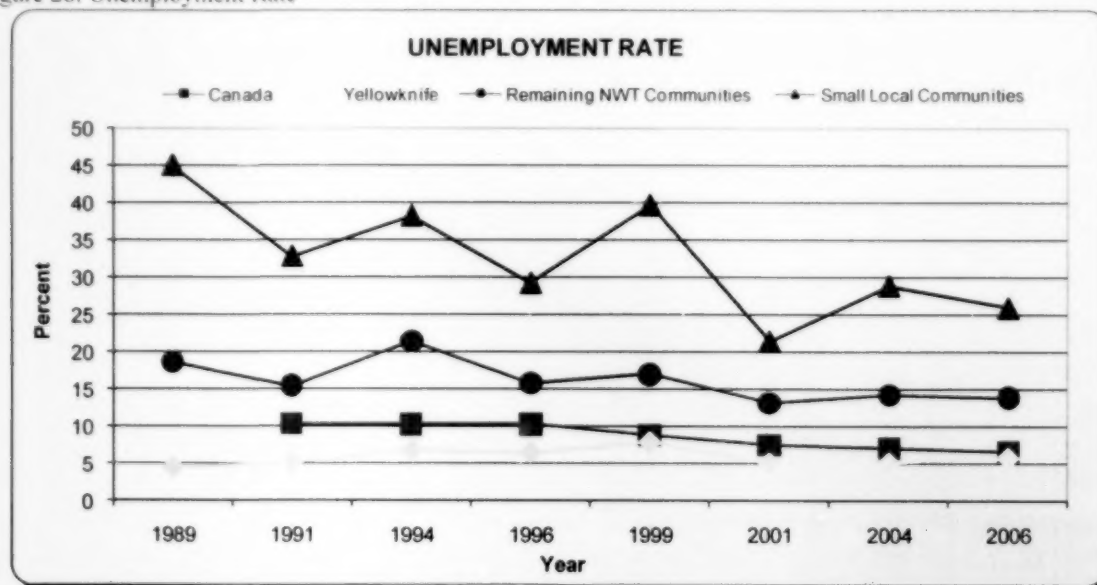
The unemployment rate shows the percent of persons (aged 15 and over) looking for work but who are unable to find work.

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 6.5.

6.5.1 Observations

The Canadian unemployment rate has continued to drop. The Yellowknife unemployment rate has not. The rate for Métis from the Yellowknife area has gone up. It is lower than the NWT rate, and higher than the Yellowknife rate. It is much higher than the rate in Small Local Communities.³² The rate is highest in Small Local Communities. However, it seems to be dropping faster there than elsewhere.

Figure 28: Unemployment Rate³³



Source: Statistics Canada Census, NWT Labour Force Survey and NWT Community Survey.

³² See Table 29 of Appendix C: Data Tables.

³³ Due to the different timing of the surveys from which the data shown above was gathered, the data points are not shown at evenly spaced intervals. However, the interval pattern is consistent: 2 years; 3 years; 2 years; 3 years; 2 years; 3 years; etc. For explanation, see note 27 above.

Comparisons between the Labour Force Survey completed by the NWT Bureau of Statistics and the Census completed by Statistics Canada should be done with caution. Census indicators are often higher due to seasonal employment activities.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↓		
Diavik	↓	↓	---
De Beers	↓		

6.5.2 Analysis

People who choose not to look for work cause the unemployment rate to drop. The unemployment rate may also be affected by people moving in and out of communities. Since the participation rate has remained consistent, a drop in the unemployment rate means that more people are becoming employed.

6.6 Participation Rate

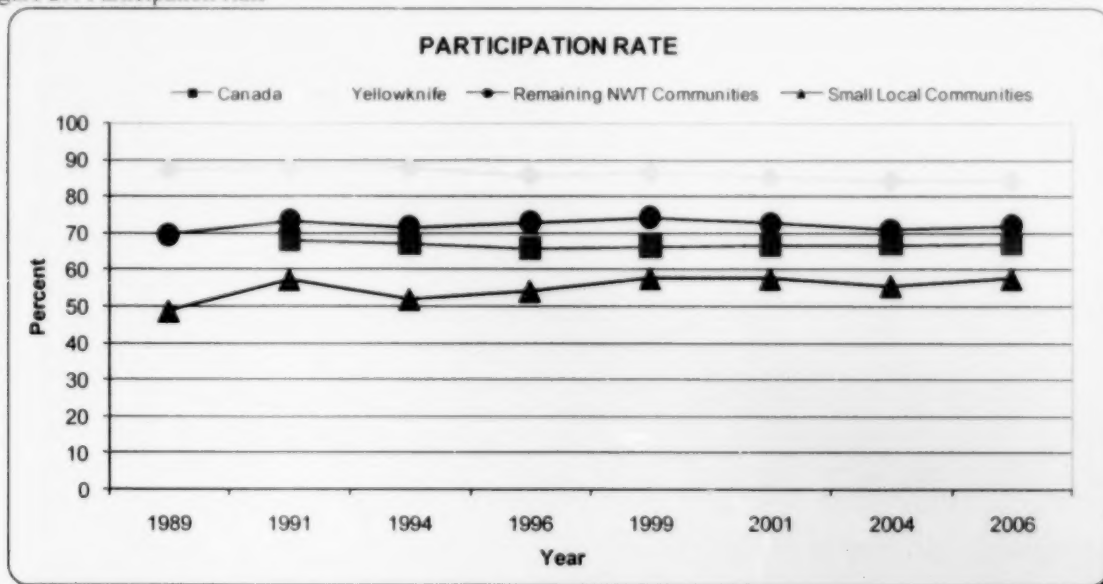
The participation rate is the percent of persons (aged 15 and older) who are working or looking for work.

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 6.6.

6.6.1 Observations

There is no clear trend in the participation rate across the NWT. There has been some improvement in Small Local Communities. The participation rate has fallen in Yellowknife. The rate for Métis from the Yellowknife area is lower than the Yellowknife rate, and higher than the NWT. It is much higher than the rate in the Small Local Communities.³⁴

Figure 29: Participation Rate³⁵



Source: Statistics Canada Census, NWT Labour Force Survey and NWT Community Survey.

³⁴ See Table 30 in Appendix C: Data Tables.

³⁵ Due to the different timing of the surveys from which the data shown above was gathered, the data points are not shown at evenly spaced intervals. However, the interval pattern is consistent: 2 years; 3 years; 2 years; 3 years; 2 years; 3 years; etc. For explanation, see note 27 above.

Comparisons between the Labour Force Survey completed by the NWT Bureau of Statistics and the Census completed by Statistics Canada should be done with caution. Census indicators are often higher due to seasonal employment activities.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑	↑	↓
Diavik	↑		
De Beers	↑		

6.6.2 Analysis

We were expecting to see a rise in the participation rate. This is because the working age population has gone up. Several things can affect the participation rate:

- Changes in the working age population;
- Frustration with the wage economy;
- Obstacles to participation such as limited access to higher education, daycare, and remoteness; and
- Out-migration.

7 Education

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 7.

7.1 High School Completion

'High School Completion' shows people who have at least finished high school. It includes people who have completed high school or grade 12 diplomas. It also includes General Education Diplomas (GED) given to mature students. 'Greater than high school' means that people who have a trade certificate, college diploma, or university degree.

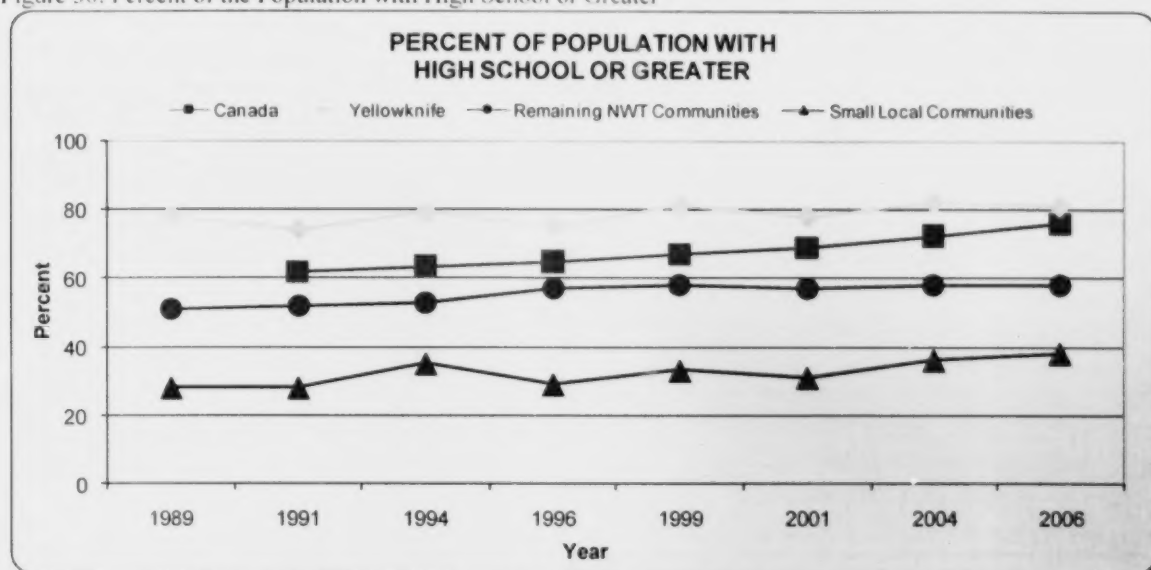
7.1.1 Observations

The percent of people with high school or greater in Yellowknife and Small Local Communities has increased steadily. The percent of Métis from the Yellowknife area with high school or greater is lower than in Yellowknife, and higher than the NWT rate. It is much higher than in the Small Local Communities.³⁶

Education levels have gone up for people aged 20 to 29. In 2006, 67 percent of NWT residents aged 15 years and older had a certificate, diploma or degree.³⁷ However, educational attainment varies by community type. In Small Local Communities, the percent of people with a certificate or diploma has dropped.

³⁶ See Table 31 in Appendix C: Data Tables.

³⁷ See Table 31.1 in Appendix C: Data Tables.

Figure 30: Percent of the Population with High School or Greater³⁸

Source: Statistics Canada Census, NWT Labour Force Survey and NWT Community Survey.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↑		
Diavik	↑	↑	
De Beers	↑		↑

7.1.2 Analysis

Grade extensions were offered in the smaller communities starting in the late 1990s. This led to a rise in the number of graduates. Support from community groups has helped people to value the benefits of education. Mines have provided incentives for northerners to stay in school by offering educational support, such as scholarships and jobs. Stronger training partnerships between government and industry have helped contribute to higher education levels in the NWT. The drop in the percent of people with a certificate or diploma in the Small Local Communities could be due to people moving out of the communities.

In addition to varying by community type, educational attainment also varies by ethnicity. The rate of aboriginal persons with no certificate, diploma or degree (54.8 percent) is much higher than the rate of non-aboriginal persons (14.1 percent).³⁹

³⁸ Due to the different timing of the surveys from which the data shown above was gathered, the data points are not shown at evenly spaced intervals. However, the interval pattern is consistent: 2 years; 3 years; 2 years; 3 years; 2 years; 3 years; etc. For explanation, see note 27 above.

7.2 Less than Grade 9

This includes people aged 15 and older with less than grade 9. It also includes youth who are now finishing Grade 9.

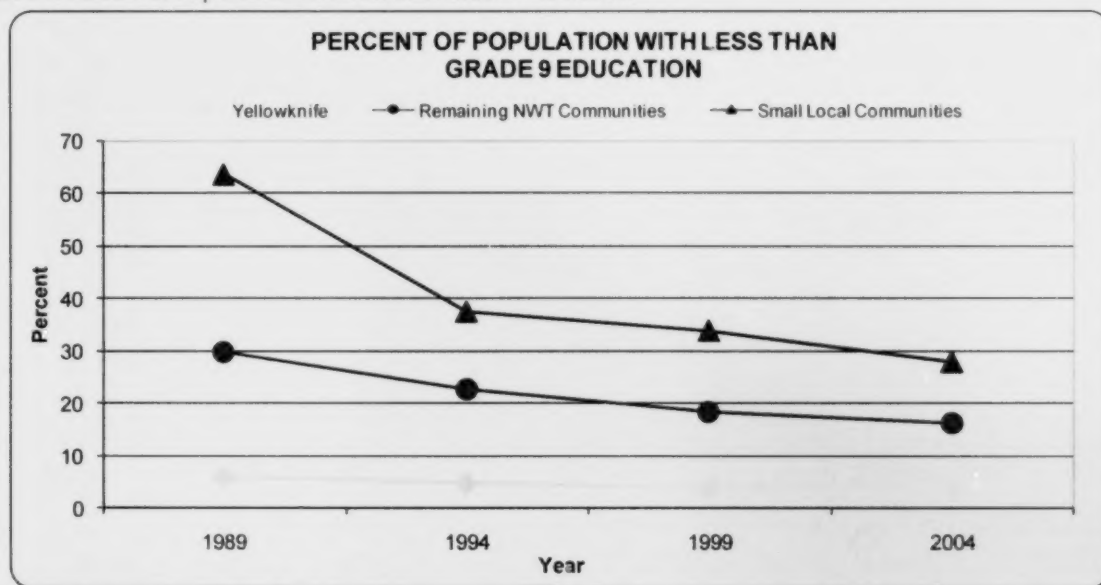
7.2.1 Observations

Across the NWT, communities saw a large drop in the percent of people with less than Grade 9 education from 1989 to 1994. This trend has continued since 1994, but at a slower pace.

Those aged 20 to 29 are driving this drop. Small Local Communities saw a decrease in people with less than grade 9 of almost 30 percent from 1989 to 1994. Since 1994, these communities saw a further 19 percent drop. This is a bit higher than the 15 percent drop since 1994 in the Remaining NWT Communities.

The percent of Métis from the Yellowknife area with less than Grade 9 is higher than in Yellowknife, but lower than in the NWT as a whole. It is much lower than in the Small Local Communities.⁴⁰

Figure 31: Percent of Population with Less than Grade 9 Education



Source: NWT Labour Force Survey and NWT Community Survey.

³⁹ 2006 Statistics Canada Census.

⁴⁰ See Table 32 of Appendix C: Data Tables.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	↓		
Diavik	↓	↓	↓
De Beers	↓		

7.2.2 Analysis

The drop in the percent of people in Small Local Communities with less than grade 9 before 1994 is partly due to grade extensions.

There is a direct link between education and employment. More youth are making informed choices. They see that education and skill development lead to better career options. Generally, the higher the education level the more employable one can be and the higher one's income can be. More education could also lead to a drop in income assistance cases.

8 Business

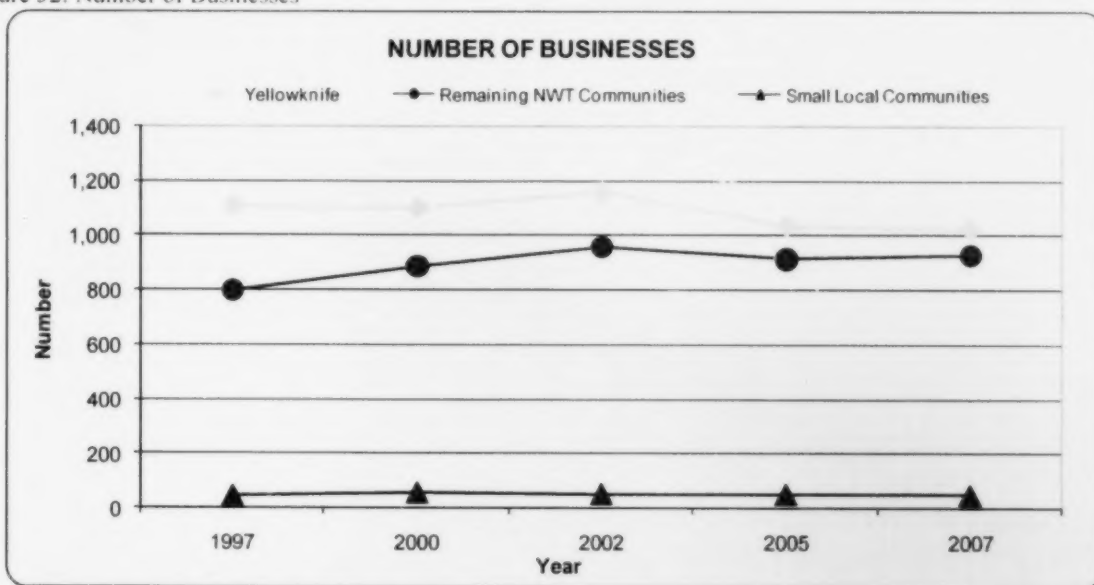
BHP, Diavik and De Beers predicted certain trends in their EARs. What they said can be found in Appendix A, Section 8.

8.1.1 Observations

The number of listed businesses in Yellowknife has gone down. In Small Local Communities, there has not been much change in the number of such businesses. Remaining NWT Communities have seen an increase in the number of registered businesses.

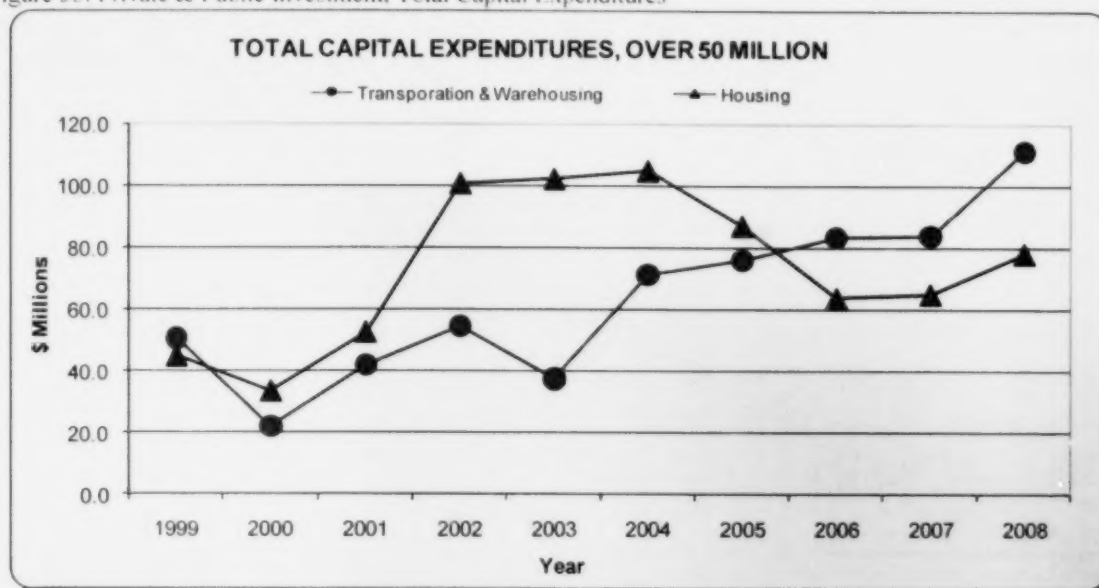
Not including mining, oil and gas and government, major spending has occurred in two sectors. These sectors are housing, and transportation and warehousing. Investments in buildings and equipment have increased in both sectors.

Figure 32: Number of Businesses



Source: ITI database of telephone directory listings.

Figure 33: Private & Public Investment, Total Capital Expenditures



Source: Statistics Canada.

Business Activity

COMPANY PREDICTED TREND		GNWT OBSERVED TREND
BHP Billiton	↑	↑
Diavik	↑	
De Beers	↑	

8.1.2 Analysis

Yellowknife's economy saw the closure of two mines in the city, and the Territory splitting up. Diamond mining has been a factor in the well-being and growth of the Yellowknife economy since. The recent decrease in the number of Yellowknife businesses is likely the result of a number of factors. These include the closure of diamond polishing plants, increasing costs and added competition. Small Local Communities have seen some business growth – most likely due to incomes from the diamond mines. Oil and gas activities may explain the faster rise in Remaining NWT Communities.

The growth being seen in Small Local Communities may mean more balanced economic growth will be seen in this region.

The increase in capital spending indicates the NWT is expanding its economy.

9 Net Effect on Government

BHP, Diavik and De Beers predicted certain trends in their EARs. What they said about government costs can be found in Appendix A, Section 9.

9.1.1 Observations

Many things can lead to higher government costs. These include changes in:

- Social trends, such as a change in the crime rate;
- The number of people living in the NWT;
- Use, such as increased industrial road use; and
- Inflation.

GNWT spending on programs and services has gone up around 6 percent each year. Much of the increase has been to cover the rising costs of maintaining current program and service levels. Program expectations are also under pressure. Mineral resource development can create demands related to the:

- Use and resulting wear and tear on existing infrastructure;
- Need for new infrastructure;
- Need to mitigate the social stresses created by development and income growth;
- Need to monitor and mitigate environmental effects; and
- Need to invest in areas such as training and business development so that northern residents can benefit from the opportunities available to them.

The GNWT also makes strategic investments. It makes these so that the NWT can see the most benefit from development with the least negative impact. Examples are action plans relating to training, STIs, or secondary industry. Other examples are changes to laws, such as the *Protection Against Family Violence Act*, which was created in 2005.

Resource development does create revenue for the GNWT. Diamond mines pay property, fuel, and corporate income tax. They also collect payroll and personal income tax from their employees. Tax revenues from the mines plus payroll tax and personal income tax paid by employees are estimated to be about \$40 million in 2006. This estimate does not include indirect employment or taxes paid by contractors and their employees. Retail businesses that spring up in response to spending by mine employees are an example of indirect employment. Tax revenues the GNWT receives from the mines, their contractors and their employees is offset under the Territorial Formula Financing (TFF) arrangements. For 2006, net revenues to the GNWT from the diamond mines are estimated to be about \$18 million.

The amount of revenue the GNWT receives is also affected by changes in the number of people living in the NWT. Each new person living in the NWT adds \$25,000 to the TFF Grant in 2009/10. However, this does not take into account the additional costs for government services for the new residents, which can vary greatly. The 2004 Community Survey tells us that about 245 diamond mine workers living in the NWT came from other places. Some of these people would have moved to the NWT with a spouse and perhaps a child.

Although residents benefit from employment and income growth, the GNWT faces growing costs. Unless it has the fiscal resources to deal with these costs, the net impact of development on government may be negative. Resource revenue sharing arrangements with the federal government would help to make the net impact positive.

Net Government Costs

COMPANY PREDICTED TREND		GNWT OBSERVED TREND
BHP Billiton	↑	--- ⁴¹
Diavik	↓	
De Beers	↑	

9.1.2 Analysis

The territorial government is seeing growing costs linked to development. It has limited ability to pay for these costs with revenue. If it faces a net fiscal cost it will become less able to adapt to the demands of development.

⁴¹ The direction of the trend cannot be stated with certainty. The GNWT does not have the information systems in place to conclude on this trend with certainty.

10 Sustainable Development

10.1 Secondary Industry

For diamond mines, an example of secondary industry is the cutting and polishing of rough diamonds. Secondary industry can also mean more chances in northern jewellery design, manufacturing, retailing and diamond tourism.

Not all of the diamond mine companies talked about secondary industry in their EARs. To find more information about what they said, please see Appendix A, Section 10.

10.1.1 Observations

Access to rough diamonds created a chance for cutting and polishing businesses to start up in the NWT. In 2008, the NWT had four diamond processing plants:

- Arslanian Cutting Works NWT Ltd.;
- Polar Bear Diamond Factory;
- Laurelton Diamonds; and
- Crossworks Manufacturing Ltd.

Together, these employ about 115 people in their NWT factories. Cutters, polishers, bruters and sawyers make up most of the workforce. Arslanian Cutting Works NWT Ltd., Polar Bear Diamond Factory and Crossworks Manufacturing Ltd. participate in the GNWT Polished Diamond Certification Program.

The De Beers Snap Lake Mine opened in October 2007. This added to the total amount of rough diamonds made available for manufacturing in the NWT. This created new interest from companies wanting to establish cutting and polishing operations in the NWT. Following a Request for Proposals process, this resulted in Crossworks Manufacturing Ltd. opening a factory in Yellowknife in October, 2008. A number of businesses have inquired and may start up operations in the NWT in the future.

COMPANY PREDICTED TREND		GNWT OBSERVED TREND	
		Small Local Communities	Yellowknife
BHP Billiton	---		
Diavik	---	---	↑
De Beers	---		

10.1.2 Analysis

Growth of this industry is due to:

- Local access to rough diamonds;
- GNWT certification programs; and
- Persistence and marketing by the GNWT and the private sector.

Continued growth in this sector will help the NWT to grow a diverse economy and to sustain development.

The Government of the Northwest Territories takes no responsibility
for financial losses suffered as a result of reliance on the information in this report.